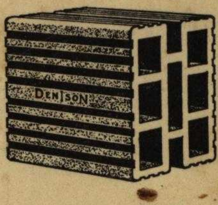
ARCHITECTURAL DETAILS

SHOWING BEST & APPROVED PRACTICE IN WALL CONSTRUCTION USING

DENISON WALLTILE



BOOK OF

Architectural Details

ON

DENISON WALLTILE

No. 569

Presented to

Hay Walker Brick Co., Pittsburgh, Pa.

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Showing Best and Approved Practice
in Wall Construction
Using

DENISON WALLTILE

Hay Walker Brick Company
Pittsburgh, Pennsylvania

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THE ARCHITECT

IN the capacity of counselor and practical guide an architect has a great and very real responsibility.

History records the deeds of men in written or picture form but the visual impression upon succeeding generations is made by the buildings each age erects for housing its people or for handling its commerce and industries.

As a matter of fact do we know the character of the peoples of the centuries by anything better than by their building?

Even today the nations and races are typified by their buildings. We are so close to our own age that we can even see the changing of the form and fashion of our buildings from one decade to another.

The masses of the people only partially influence the sort of buildings they shall live in and work in. When the tendency of the people is to rush and hurry they demand designs and construction characteristic of this disposition. In their more placid moods their desires turn to substantial structures.

At all times the artistic as well as the practical good sense of the architect is the deterrent to the drift toward the unsightly, the unsanitary as well as unsubstantial sort of buildings.

Any material that commands the approval of the American achitect can be accepted unreservedly by the builders as being unqualifiedly good. The architect has no object but to make each building a monument to his own artistic skill and practical judgment. His professional pride is concerned chiefly in finished structures that serve their purposes to perfection and reflect credit upon the designers.

It is a real conviction with producers of building materials that in order to be successful their product must satisfy the critical inspection of the architects. It is our desire and purpose to help the architects in every way possible to apply material to the uses to which it is adapted.

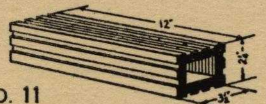
We have therefore prepared this complete set of details which cover every situation, and which will enable architects to easily employ our product in the construction of buildings where it is adaptable. It will be permissible, we assume, to urge at least the consideration of our product in the case of all of the types and kinds and sizes of buildings for which it is most suitable.

We give architects, as they very properly demand, an absolute guarantee that our product will ever be kept to its highest point of perfection and that in all our service to builders we will consider ourselves bound to render complete and perfect satisfaction.

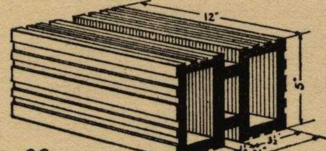
HAY WALKER BRICK COMPANY, PITTSBURGH, PA.
Manufacturers and Distributors of
DENISON WALLTILE

DENISON H WALLTILE

WE have sought to make this book both attractive and useful to architects. The admitted purpose is first to convince the recipient of the superior merits of DENSION "H" WALLTILE and second to serve him constructively in the application of this material in buildings being erected by him.



NO. 11

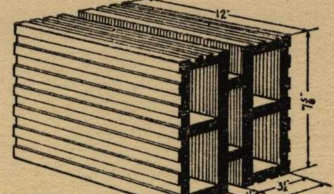


NO. 23

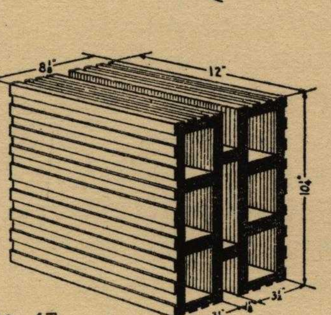
DENISON "H" WALLTILE possesses all of the merits of the hard burned shale and clay hollow tile principle with exclusive features. Its principal distinction is that it is laid on edge and that its cells or voids are thus horizontal and also the dovetail grooves or scorings are horizontal. The claim is made that these small air cells lying horizontally and being sealed where each course ends at a corner or an opening, offer the most perfect insulation, also maximum fire protection and the advantage of more easily maintained temperature inside, regardless of weather outside.

The horizontal dovetail grooves also offer better bond for mortar than grooves running vertically.

The proven load bearing strength of this tile is far greater than the codes of any city or state require. The indestructibleness of the material of which this tile is made is not merely a scientific conjecture but a fact proven through the centuries.



NO. 35

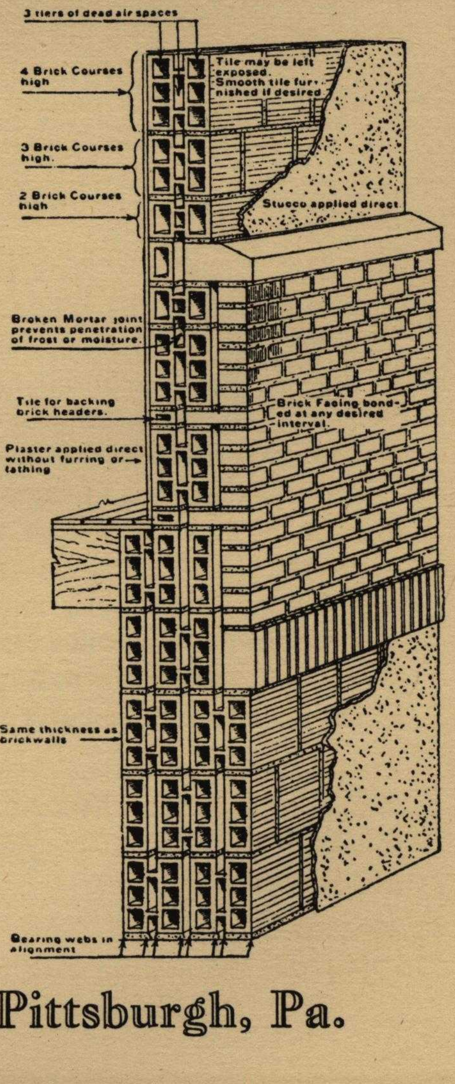


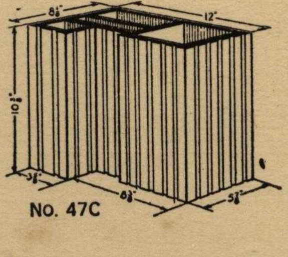
NO. 47

DENISON "H" WALLTILE includes six distinct units which in combination will perfectly fit into brick or stone specifications for all walls and foundations. The economical principle is to make possible the maximum use of unit No. 47. This when laid is exactly equal to 12 regular brick, including intervening mortar. Where heights of wall or openings do not correspond to an even number of courses of No. 47 the correct height can be obtained by using one or more of the other sizes.

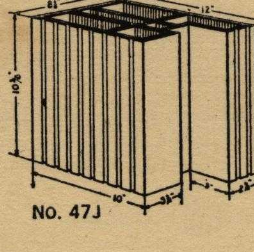
Units 47-C and 47-J, in varying heights, are used for corners and jambs and are set vertically, This practice serves the purpose of sealing up the cells or voids in the horizontally laid tile and provides motionless or dead air, maximum insulation.

The illustration to the right shows the elasticity of combinations of the units. Throughout this book you may study not theory alone, but the methods actually practiced for years in use of this tile in all sorts and sizes of buildings.


3 tiers of dead air spaces
4 Brick Courses high
Tile may be left exposed. Smooth tile furnished if desired
3 Brick Courses high.
2 Brick Courses high
Stucco applied direct
Broken Mortar joint prevents penetration of frost or moisture.
Tile for backing brick headers.
Brick Facing bonded at any desired interval.
Plaster applied direct without furring or lathing
Same thickness as brickwalls
Bearing webs in alignment



NO. 47C



NO. 47J

Hay Walker Brick Company, Pittsburgh, Pa.

SPECIFICATIONS

UNIT PARAGRAPHS FOR

DENISON WALLTILE

Architect may select from these paragraphs such as may be suited to his form of specification and incorporate them therein

General Character or Quality of Hollow Tile.

All hollow tile for use in this building shall be hard burned and uniform in size, free from detrimental foreign matter, such as lime, and shall have no cracks or checks extending more than one and one-half inch in length in any bearing web or more than two and one-half inches in other webs, and the moisture absorption shall not exceed ten percent for interior or non-exposed walls, eight percent for exterior or exposed walls, and five percent for basement or below grade walls or where the tile may come in contact with the soil or earth. The crushing strength of tile to be used in bearing walls shall not be less than . . . pounds per square inch of gross area of the tile.

Causes for Rejections.

Variation in size of more than one-quarter inch. Warped or crooked tile where the chord of the arch is more than one-quarter inch. Variation in moisture absorption of more than two percent in excess of that specified for the use to which the tile is to be put.

Tolerance.

There will be a tolerance allowed of not to exceed five percent of the quantity of tile delivered.

Mortar.

For tile the mortar shall be composed of standard Portland cement complying with A. S. T. M. requirements, and good sharp clean sand free from clay or dirt and shall be thoroughly mixed in the proportions of one part of cement to three parts of sand to which may be added lime putty not to exceed ten percent by volume of the cement.

Kind or Type of Tile.

For all foundation, bearing, division, exterior and closure walls or walls other than partitions under eight inches thick, contractor shall base his bid on using Denison "H" Walltile to be laid in accordance with the standard specifications for Wilson System Wall Construction. *Alternate.* Contractor may bid on other than above specified tile by stating in his bid as an alternate what is to be added or deducted for same giving name of or make of tile he proposes to substitute. Said alternate shall be subject to acceptance or rejection by architect or owner as they may elect.

Wilson System Wall Construction

(Standard specification)

Denison "H" Walltile shall be laid with the voids horizontal except for corners, jambs, piers or pilasters; all vertical joints shall be staggered and the tile above should overlap longitudinally the tile below by at least three inches.

When the wall thickness is greater than that of the tile it shall be constructed of a combination of whole and half thickness units, spaced apart from each other the distance of the void between the two lobes of the whole tile, and the next whole tile above shall bond two sub-adjacent tile below together by overlapping two bearing webs of each, retaining all bearing webs in alignment.

When the wall is faced with brick the facing brick shall be bonded into the tile backing with brick headers, either full or blind as shown, not farther apart than every second course of tile and in no case shall the distance center to center of headers exceed twenty-five and three-quarter inches, except where the facing is not counted as part of the wall thickness, or where the tile backing thickness is increased at least four inches, and in no case, shall the distance center to center of headers exceed that required under any local ordinance or law governing same.

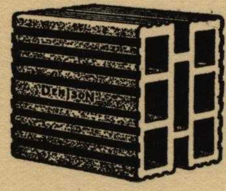
Where joists rest upon the wall they shall extend into same so that they will overlap at least two bearing members of the tile.

Where concentrated loads appear, the loads shall be distributed as illustrated on "S." Detail Set No. 7, Sheet No. 2, and the distribution shall be of such area that the load will not exceed, per square inch, the safe allowable working stress of the tile or mortar used as determined by law or elsewhere in the specifications.

Where wall heights do not work out to even courses of the tile being used, a smaller unit shall be used to complete the height.

Dimension lengths, which are furnished in sufficient quantities, shall be used to complete lengths of walls and between openings, etc.

Contractor will pile the various units, fractional length dimension tile, corners, jambs, and half jambs separately and shall instruct mason foreman to have same brought to the various masons in such percentage as will make it unnecessary to cut regular tile units. No brick shall be used in tile walls to fill in, except as shown on plans, or otherwise specified.



PRACTICAL SUGGESTIONS

OWING to its form DENISON "H" WALLTILE is easily handled and stacks without waste of space or danger of breakage if ordinary care is taken.

Hollow tile should not be dumped from trucks or wagon. Stack the various sizes together. This saves breaking and time.

Do not allow masons to break up regular tile units. The factory always ships an ample percentage of fractional parts. Time and cost conserved here.

In order to have proper assortment of fill-in sizes, your plans should be submitted with your order. Factory will then be able to furnish ample quantities and also advise by notation where different sizes are to be used.

DENISON "H" WALLTILE may be had in shapes and sizes that make it unnecessary to use brick for patching or filling out spaces.

DENISON "H" WALLTILE is laid on the sides with the cells or voids horizontal. These openings are cut off at corners and openings by special tile set vertically, in shapes and sizes suitable for corners and jambs.

Tile should be carefully inspected as soon as delivered on the job. Defective units should be set aside and if necessary replaced by perfect tile to avoid delay later. The DENISON "H" WALLTILE factories purpose only to ship flawless material and will make good any defective product.

Hollow building tile as a backing for stucco is the ideal material for economy, safety and durability. It does not shrink nor swell, has low absorption quality, will not disintegrate—and has a surface that is both sufficiently rough and dense to insure the best bond between the two materials, and besides it is deeply scored, which provides the strongest possible mechanical bond. In the DENISON "H" WALLTILE these scorings or grooves are horizontal. Walls built of this tile need not be furred and lathed on the inside for plaster, as the insulation is already perfect. There are no continuous mortar joints. Even carelessness in applying the mortar will not spoil the perfect separation of the parallel layers of mortar. It is not necessary to caution the bricklayer—it would be troublesome if not impossible to make a continuous mortar joint in this type of hollow tile.

Stucco finish should not be applied in freezing weather. Use a good waterproofing compound in the finish coat of your stucco especially if your building is so located as to be exposed to driving storm. Stucco cannot crack or come off a hollow tile wall once it has been properly applied. There is a genuine bond between the stucco and the hard burned tile.

Window frames should be of a size that will work with the tile units so that cutting the tile may be avoided.

Remember that wood frames will shrink away from the masonry. While caulking may not be necessary it is often advisable around doors and windows where the building is in a windy location.

The surface to which stucco is to be applied should be perfectly clean and free from all foreign material and should be thoroughly "*wetted-down*" before the first coat is applied. The first coat should be applied with such force as to key into the horizontal scorings or dovetail grooves. Air bubbles should be squeezed out with pressure. The surface should then be thoroughly scratched to make a perfect bond for the next coat. The second coat should be applied as soon as first has set enough to permit work to be done on it. The usual method should be applied for smoothing the surface and finishing same.

It is advisable to apply stucco as soon as it is mixed. It should not be retempered after it has become partially set. Stucco must not be allowed to dry too quickly. If necessary should be wetted-down thoroughly while it is drying out.

The finish coat of stucco should be applied to any given area practically at the same time. Do not leave a finish coat in unfinished condition. Cover completely one area, that is one side of the building from corner to corner.

The average thickness of each coat of stucco is from one-quarter to one-half inch. Usually two coats aggregating three-fourths of an inch are allowed for rough cast or pebble-dash finish. Three coats should always be applied for a smooth or flat finish.

Be careful to seal all joints—do not leave holes or crevices on either outside or inside surface of the wall. Fill up with mortar—not stucco. Do not carry stucco down to grade.

Be careful to form drips under lintels and sills, also under belt courses or other projections.

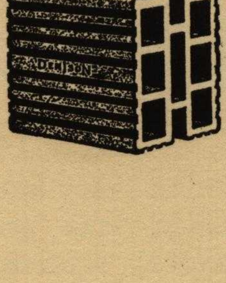
Horizontal flat surfaces of Stucco should be avoided. Belt courses should be formed with ample wash.

Do not cut holes in the tile to support joints or beams. The strength of your wall depends upon the bearing webs and care should be employed in having joints and beams resting over two bearing webs,

Do not permit haphazard or careless back-filling around tile foundations. Prevent the forming of pockets for accumulation of surface water next to foundation. Fill in carefully with good gravel for the sake of your wall and surrounding surface.

Partly completed walls should be covered at end of work day to prevent damage to newly finished work from rain, snow or frost.

In rough estimating quantity of tile for a given building figure the square foot area of work to be done and multiply result by number of tile to lay one square foot, adding for the area of copings and for other special work. Deductions are made for all openings over four feet square. Quantities for the several shapes and sizes should be carefully figured and clearly specified. It is best to submit plans with order so that factory engineers can check the figures.

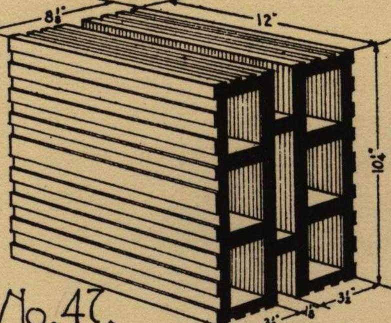


LOAD-BEARING TILE

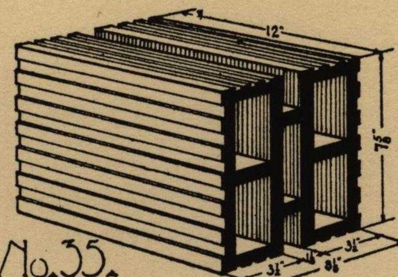
COPYRIGHT 1914

HAY WALKER BRICK CO. PITTSBURGH, PA.

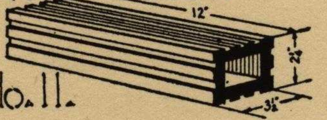
SEE DETAILS FOR SPECIFIC USE OF THESE BLOCKS ON SUBSEQUENT SHEETS



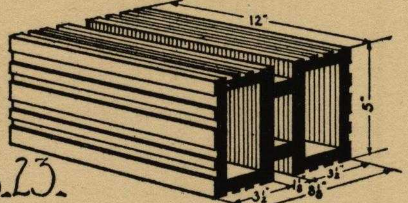
No.47.



No.35.

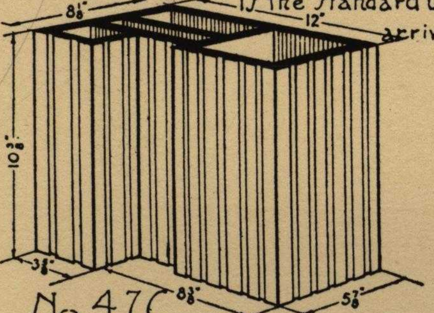


No.11.

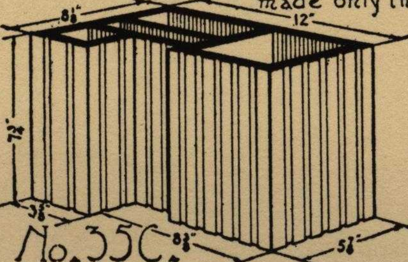


No.23.

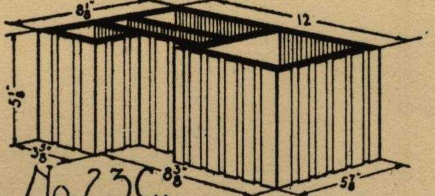
No.47 is made in 12 10⅜ 8", 6" and 4" lengths. Deep scored one side and smooth one side, deep scored two sides or smooth two sides. No.35 and No.23 made in the same lengths with the same scorings, except 10⅜" length. No.47 is the standard unit, while the No.35 or No.23 may be used if desired; their principal use is to arrive at specific brick heights. No.11 is intended for the same purpose and is made only in 12" lengths.



No.47C.

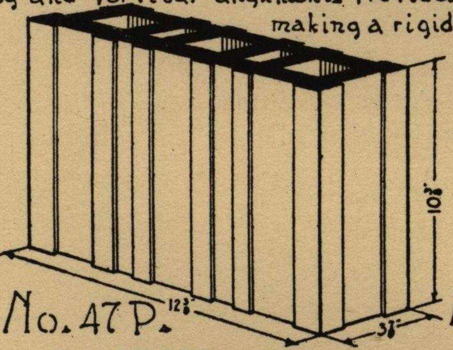


No.35C.

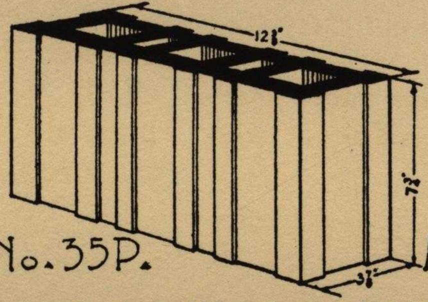


No.23C.

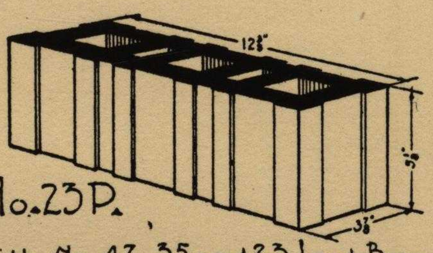
No.47C, 35C and 23C tile are respectively used in conjunction with No.47, 35 and 23 Load-Bearing Tile. They close and turn corners forming perfect bond and retaing all vertical webs in bearing and vertical alignment. Provides a 6" hollow square corner which may be filled with concrete, making a rigid column at the corner.



No.47P.

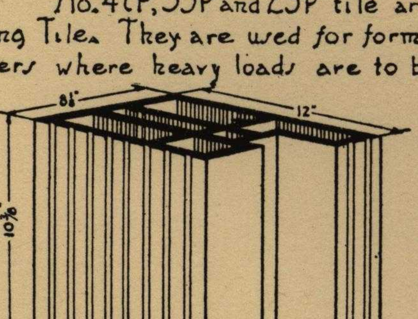


No.35P.

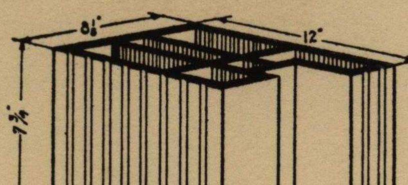


No.23P.

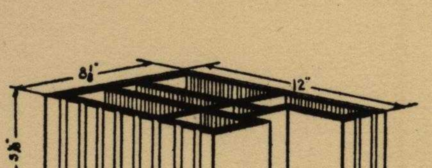
No.47P, 35P and 23P tile are respectively used in conjunction with No.47, 35 and 23 Load-Bearing Tile. They are used for forming casement frame jambs and half jambs, also columns and pilasters where heavy loads are to be carried and may be filled with concrete and reinforced, if desired.



No.47J.



No.35J.



No.23J.

No.47J, 35J and 23J jamb tile are respectively used in conjunction with the standard No.47, 35 and 23 tile and are made in a 6" length in addition to the 12 length shown.

NOTES

LOAD-BEARING TILE

HAY WALKER BRICK CO PITTSBURGH, PA.

Table of Quantities of Tile and Mortar Required to Lay 1000 sq ft of Wall 8" in Tile Thickness.

	Ctr to Ctr of Header	Header to Header	· Denison Load·Bearing Tile ·					Regular Back up Tile			
			No. 47 8⅛·10¼·12	No. 35 8⅛·7⅝·12	No. 23 8⅛·5·12	No. 11 3½·2¼·12	Cub. ft of Mortar	8·5·12	4·5·12	Common or Hollow Brick	Cub. ft of Mortar
All Tile			1050	1400	2100			2100		13000	
5th Course Header 2⅝" Brick and Joint	13⅛"	10⅞"		1050		1260	55				
" " " 2¾" " " "	13¾"	11½"	840			840	42	1685		1265	84
" " " 2⅞" " " "	14⅜"	12⅛"	840			840	42	1685		1265	84
" " " 3" " " "	15"	12¾"			1680	840	50				
6th Course Header 2½" " " "	15"	12¾"			1680	840	50				
" " " 2¾" " " "	16½"	14¼"		700	700	700	60	1400	700	1050	84
" " " 2⅞" " " "	17¼"	15"		700	700	700	60	1400	700	1050	84
" " " 3⅛" " " "	18¾"	16½"		1200		600	51				
7th Course Header 2½" " " "	17½"	15¼"		700	700	700	60				
" " " 2¾" " " "	19¼"	17"		1200		600	51	1800		900	81
" " " 2⅞" " " "	20⅛"	17⅞"		1200		600	51	1800		900	81
" " " 3 " " "	21"	18¾"	525	525		525	45				
8th Course Header 2½" " " "	20"	17¾"	600		600	600	51				
" " " 2¾" " " "	22"	19¾"	525	525		525	45	1575	525	790	81
" " " 2⅞" " " "	23"	20¾"	525	525		525	45	1575	525	790	81
" " " 3" " " "	24"	21¾"	930			465	40				
9th Course Header 2⅝" " " "	23⅝"	21⅜"	525	525		525	45				
" " " 2¾" " " "	24¾"	22½"	930			465	40	1880		700	81
" " " 2⅞" " " "	25⅞"	23⅝"	930			465	40	1880		700	81
" " " 3" " " "	27"	24¾"		1260		420	41				

For each extra 4" thickness add 100% to No. 11 tile or brick and 50% to all other tile

Increase all mortar quantities 50% for each 4" additional thickness

Wall area of No. 47 · .952 sq ft Wall area of No. 35 · 714 sq ft Wall area of No. 23 · 476 sq ft. Wall area of No. 11 · .238 sq ft Wall area of 8"·5"·12" and 4"·5"·12" · .476 sq ft Wall area of Brick · .158 sq ft.

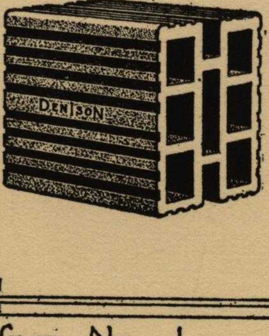
Rule – Divide 1000 by the sum of the area of the tile required for the unit, multiply this by the number of pieces of the kind in unit.

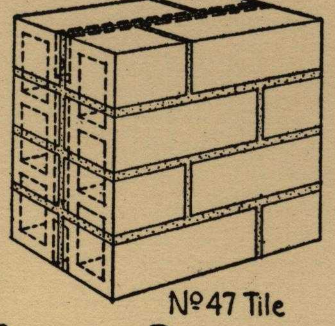
Data · Mason and Helper should Lay

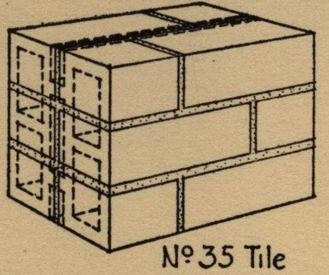
Average of	30 to 35	pieces of	#47 tile per hour
"	" 35 · 40	" "	#35 " " "
"	" 40 · 45	" "	#23 " " "
"	" 150 · 175	" "	#11 " " "
"	" 40 · 45	" "	8"·5"·12" " " "
"	" 45 · 50	" "	4"·5"·12" " " "
"	" 150 · 175		Common Brick " "

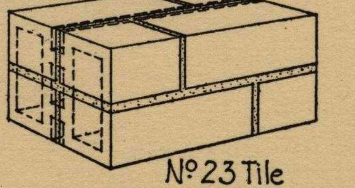
Example

To lay up 1000 sq ft of 13" wall 8" backing 9th course header 2¾" brick and joint	
930 pieces #47 @ $............	$......
465 " #11 @ $............	$......
Labor #47 @ 30 pce per hr $......	$......
" #11 @ 160 " " " $......	$......
Mortar 40 Cub ft @ $............	$......
Cartage............................	$......
Scaffolding........................	$......
Hoisting...........................	$......
Total cost of 1000 sq ft of backing.	$......




No. 47 Tile


No. 35 Tile


No. 23 Tile

·SHADOW DRAWINGS SHOWING TILE COMPARED WITH BRICK·

NOTES

LOAD-BEARING TILE

HAY WALKER BRICK CO. PITTSBURGH, PA.

Tables No. 1 - 2 and 3 give the exact heights, of various numbers of courses of Load-Bearing Tile.

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Table No 4 gives the exact heights of various numbers of courses of Load-Bearing Tile brick faced

Table Number 1				
Courses	A	B	C	D
1	0-10¾	1-1½	1-4¼	1-7
2	1-9½	2-0¼	2-3	2-5¾
3	2-8¼	2-11	3-1¾	3-4½
4	3-7	3-9¾	4-0½	4-3¼
5	4-5¾	4-8½	4-11¼	5-2
6	5-4½	5-7¼	5-10	6-0¾
7	6-3¼	6-6	6-8¾	6-11½
8	7-2	7-4¾	7-7½	7-10¼
9	8-0¾	8-3½	8-6¼	8-9
10	8-11½	9-2¼	9-5	9-7¾
11	9-10¼	10-1	10-3¾	10-6½
12	10-9	10-11¾	11-2½	11-5¼
13	11-7¾	11-10½	12-1¼	12-4
14	12-6½	12-9¼	13-0	13-2¾
15	13-5¼	13-8	13-10¾	14-1½
16	14-4	14-6¾	14-9½	15-0¼
17	15-2¾	15-5½	15-8¼	15-11
18	16-1½	16-4¼	16 7	16-9¾
19	17-0¼	17-3	17-5¾	17-8½
20	17-11	18-1¾	18-4½	18-7¼
21	18-9¾	19-0½	19-3¼	19-6
22	19-8½	19-11¼	20-2	20-4¾
23	20-7¼	20-10	21-0¾	21-3½
24	21-6	21-8¾	21-11½	22-2¼

Table No. 1. gives figures on the heights of various numbers of courses of *47 tile and courses of *47 tile in combination with other sizes of tile. The numbers on the margin indicate the number of courses. Column A, courses of *47 tile. Column B, combined courses of *47 & *11 tile. Column C, *47 & *23 tile. And column D, *47 & *35 tile.

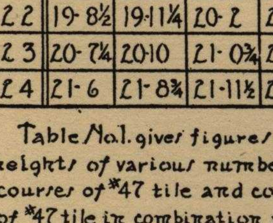


Table Number 2			
Courses	A	B	C
1	0-8	0-10¾	1-1½
2	1-4	1-6¾	1-9½
3	2-0	2-2¾	2-5½
4	2-8	2-10¾	3-1½
5	3-4	3-6¾	3-9½
6	4-0	4-2¾	4-5½
7	4-8	4-10¾	5-1½
8	5-4	5-6¾	5-9½
9	6-0	6 2¾	6-5½
10	6-8	6-10¾	7-1½
11	7-4	7-6¾	7 9½
12	8-0	8-2¾	8-5½
13	8-8	8-10¾	9-1½
14	9-4	9-6¾	9-9½
15	10-0	10-2¾	10-5½
16	10-8	10-10¾	11-1½
17	11-4	11-6¾	11-9½
18	12-0	12-2¾	12-5½
19	12-8	12-10¾	13-1½
20	13-4	13-6¾	13-9½
21	14-0	14-2¾	14-5½
22	14-8	14-10¾	15-1½
23	15-4	15-6¾	15-9½
24	16-0	16-2¾	16-5½
25	16-8	16-10¾	17-1½
26	17-4	17 6¾	17-9½
27	18-0	18 2¾	18-5½
28	18-8	18-10¾	19-1½
29	19-4	19-6¾	19-9½
30	20-0	20-2¾	20-5½
31	20-8	20-10¾	21-1½
32	21-4	21-6¾	21-9½
33	22 0	22 2¾	22-5½

Table No. 2 is used the same way as Table No. 1, to determine courses of *35 tile. Column A, courses of *35 tile. Column B, combined courses of *35 & *11 tile. And Column C, *35 & *23 tile.

Table No. 3.		
Courses	A	B
1	0-5½	0-8¼
2	0-11	1-1¾
3	1-4½	1-7¼
4	1-10	2-0¾
5	2-3½	2-6¼
6	2-9	2-11¾
7	3-2½	3-5¼
8	3-8	3-10¾
9	4-1½	4-4¼
10	4-7	4-9¾
11	5-0½	5-3¼
12	5-6	5-8¾
13	5-11½	6-2¼
14	6-5	6-7¾
15	6-10½	7-1¼
16	7-4	7-6¾
17	7-9½	8-0¼
18	8-3	8-5¾
19	8-8½	8-11¼
20	9-2	9-4¾
21	9-7½	9-10¼
22	10-1	10-3¾
23	10-6½	10-9¼
24	11-0	11-2¾
25	11-5½	11-8¼
26	11-11	12-1¾
27	12-4½	12-7¼
28	12-10	13-0¾
29	13-3½	13-6¼
30	13-9	13-11¾
31	14 2½	14-5¼
32	14-8	14-10¾
33	15-1½	15-4¼
34	15-7	15-9¾
35	16-0½	16-3¼
36	16 6	16-8¾
37	16-11½	17-2¼
38	17-5	17-7¾

Table Number 4					
Courses	A	B	C	D	E
1	1-1½	1-4¼	1 6¾	1-9½	2-0¼
2	2-3	2-8½	3-1½	3-7	4-0½
3	3-4½	4-0¾	4-8¼	5-4½	6-0¾
4	4-6	5-5	6-3	7-2	8-1
5	5-7½	6-9¼	7-9¾	8-11½	10-1¼
6	6-9	8-1½	9-4½	10-9	12-1½
7	7-10½	9-5¾	10-11¼	12-6½	14-1¾
8	9-0	10-10	12-6	14-4	16-2
9	10-1½	12-2¼	14-0¾	16-1½	18-2¼
10	11-3	13-6½	15-7½	17-11	20-2½
11	12-4½	14-10¾	17-2¼	19-8½	22-2¾
12	13-6	16-3	18-9	21-6	24 3
13	14-7½	17-7¼	20-3¾	23-3½	26 3¼
14	15-9	18-11½	21-10½	25-1	28-3½
15	16-10½	20-3¾	23-5¼	26-10½	30-3¾
16	18-0	21-8	25-0	28-8	32-4
17	19-1½	23-0¼	26-6¾	30-5½	34-4¼
18	20-3	24 4½	28-1½	32-3	36-4½
19	21-4½	25-8¾	29-8¼	34-0½	38-4¾
20	22-6	27 1	31-3	35-10	40-5
21	23-7½	28-5¼	32-9¾	37-7½	42-5¼
22	24-9	29 9½	34-4½	39-5	44-5½
23	25-10½	31-1¾	35-11¼	41-2½	46-5¾
24	27-0	32-6	37-6	43-0	48-6
25	28-1½	33-10¼	39-0¾	44-9½	50-6¼
26	29-3	35-2½	40-7½	46-7	52-6½
27	30-4½	36-6¾	42-2¼	48-4½	54-6¾
28	31-6	37-11	43-9	50-2	56 7
29	32-7½	39-3½	45-3¾	51-11½	58-7¼
30	33-9	40-7¾	46-10½	53-9	60-7½
31	34-10½	42-0	48-5¼	55-6½	62-7¾

Table Number 4
Col A. 5th course header
" B. 6th " "
" C 7th " "
" D. 8th " "
" E. 9th " "

Table No 3 is used the same as Tables No 1 & 2, to determine courses of *23 tile (Column A) and *23 & *11 tile, (Column B) in combined courses.

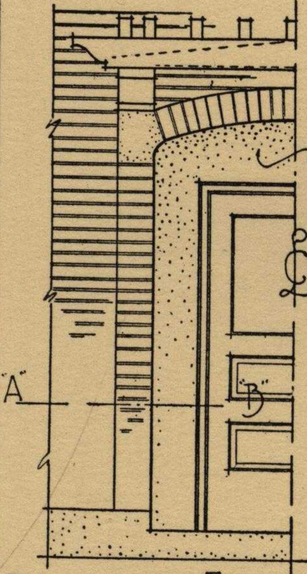
SET NO. 1.

SHEET NO. 3.

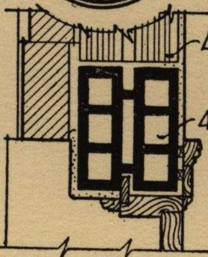
NOTES

LOAD BEARING TILE

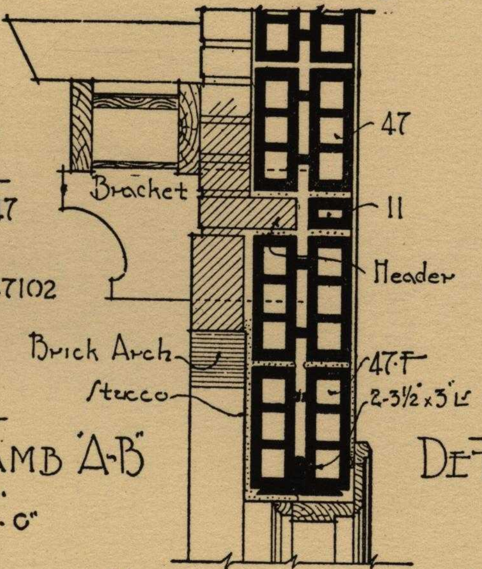
HAY WALKER BRICK CO. PITTSBURGH, PA.



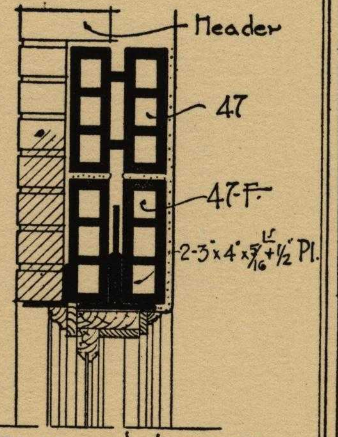
DETAIL of an ENTRANCE
Scale 1/4": 1' 0"



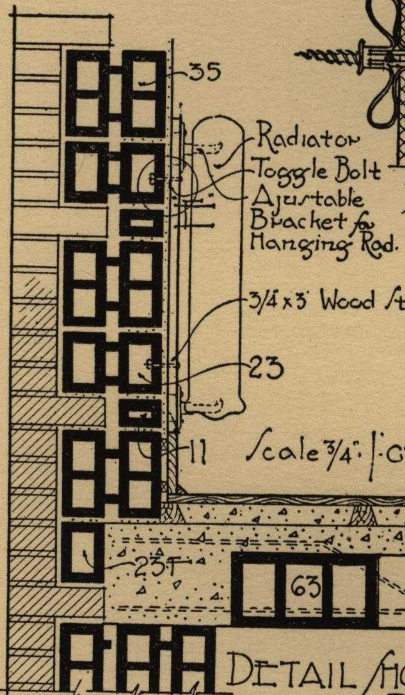
DETAIL of JAMB "A-B"
Scale 3/4": 1' 0"



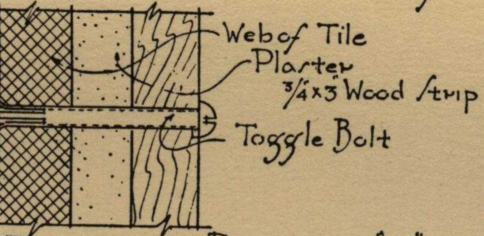
DETAIL of HEAD at ℄



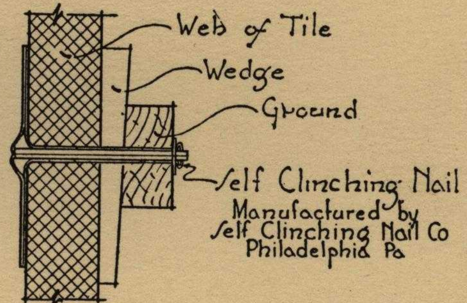
DETAIL of WINDOW HEAD
Showing Steel Lintel for Long Span Opening



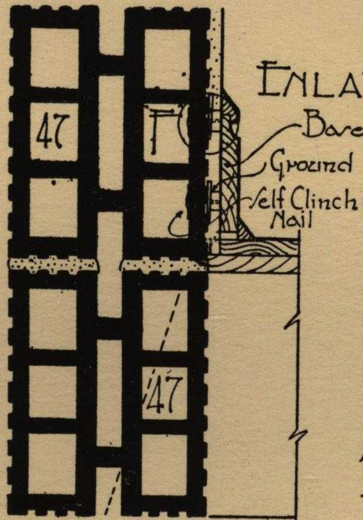
DETAIL SHOWING METHOD of FASTENING RAD. to DENISON L.B TILE WALL



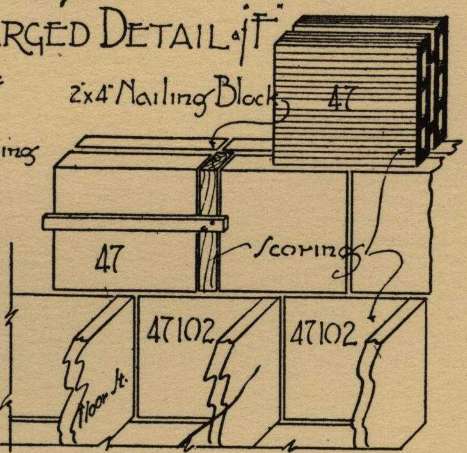
ENLAGED DETAIL of "E"



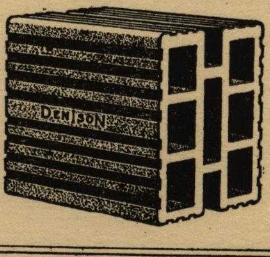
ENLARGED DETAIL of "F"



DETAIL SHOWING METHOD USED in SECURING GROUNDS to DENISON L.B. TILE WALL by USE of SELF CLINCHING NAILS Scale 1½": 1' 0"



SKETCH ILLUSTATING USUAL METHOD of FASTENING GROUNDS
Scale - 3/4". - 1' - 0"

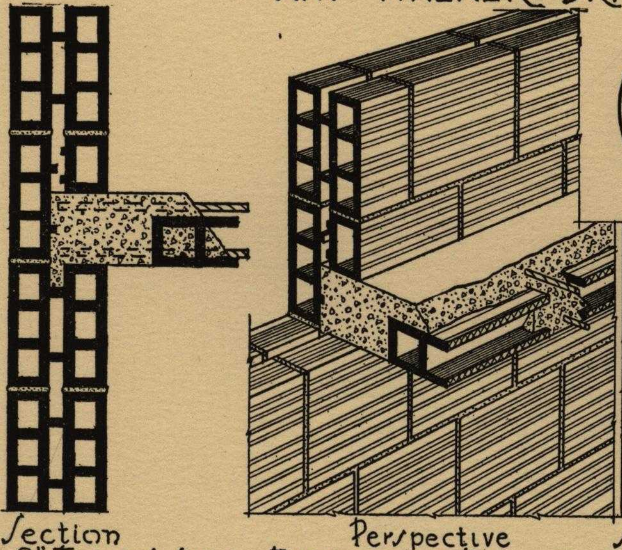


E.D.C.

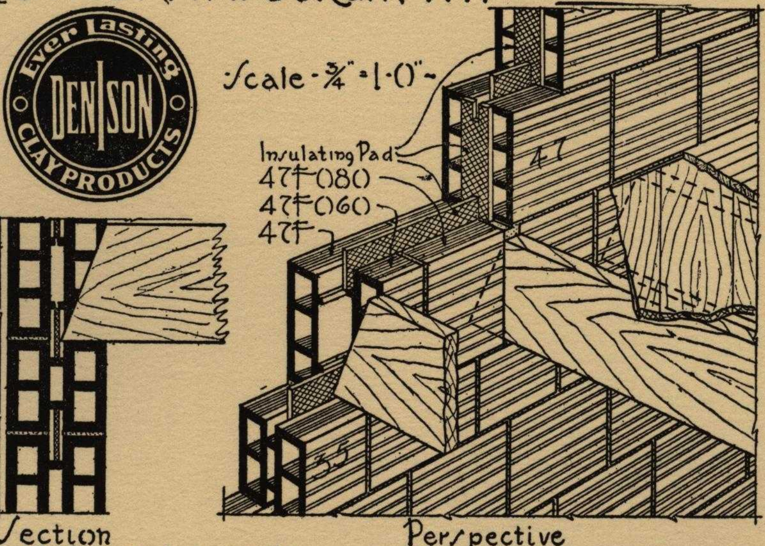
NOTES

LOAD-BEARING TILE

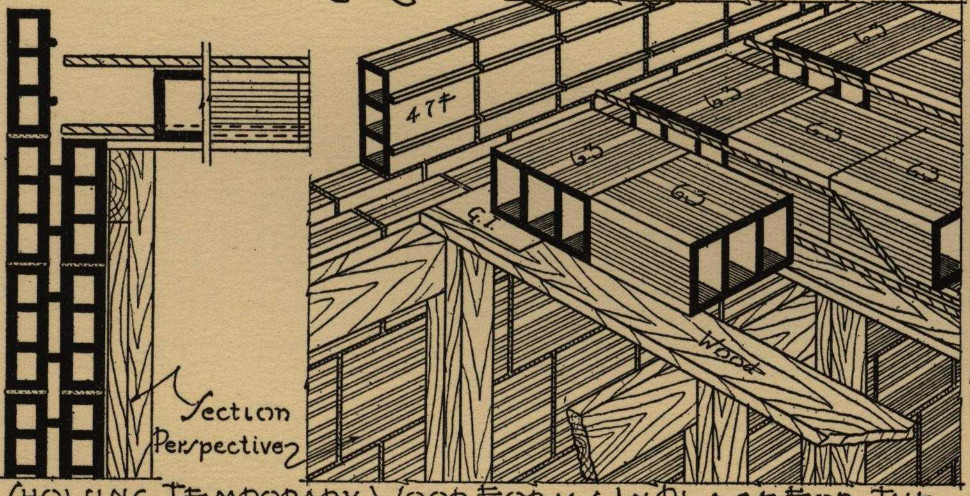
HAY WALKER BRICK CO. PITTSBURGH, PA.



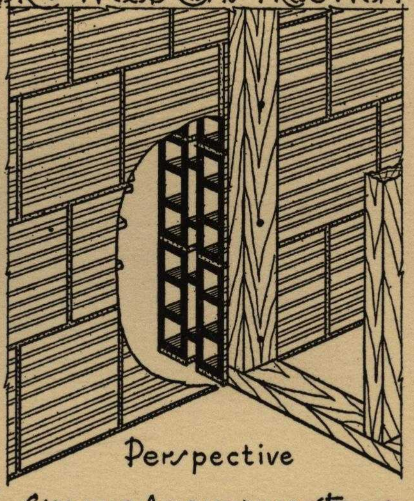
8" TILE WALL-FIREPROOF FLOOR



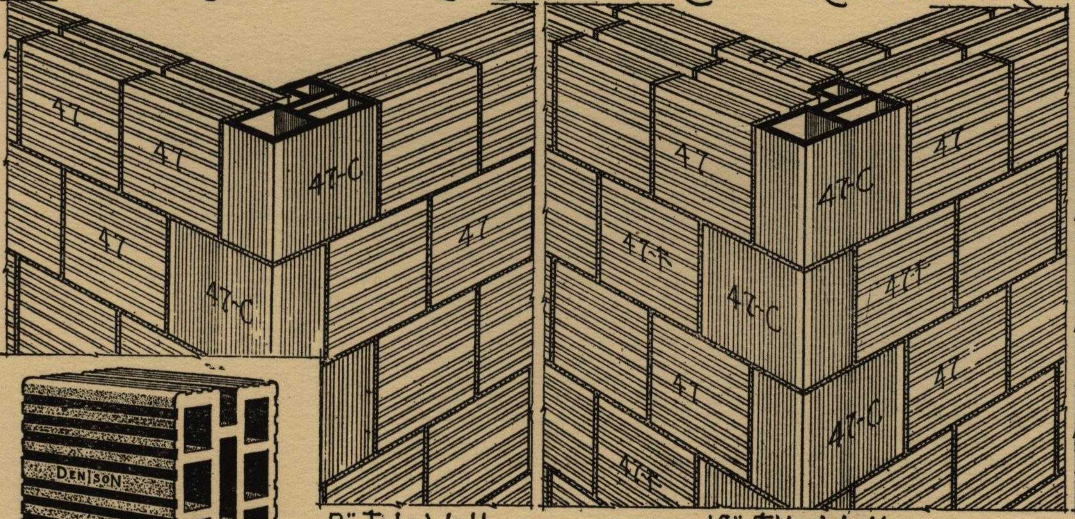
8" TILE WALL-FLOOR of WOOD CONSTRUCTION



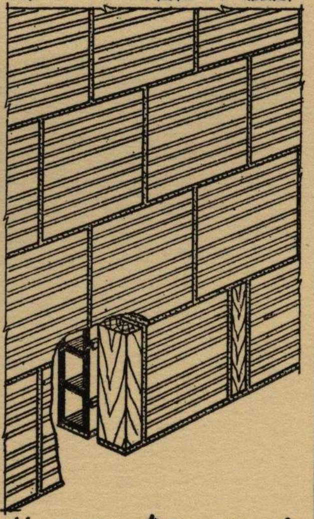
SHOWING TEMPORARY WOOD FORMS IN PLACE FOR THE TILE-CONCRETE-STEEL FIREPROOF FLOOR CONSTRUCTION



SHOWING ANCHORING of FRAME PARTITIONS TO TILE WALLS



CORNER CONSTRUCTION



NAILING BLOCKS for WOOD TRIM

NOTES

LOAD-BEARING TILE

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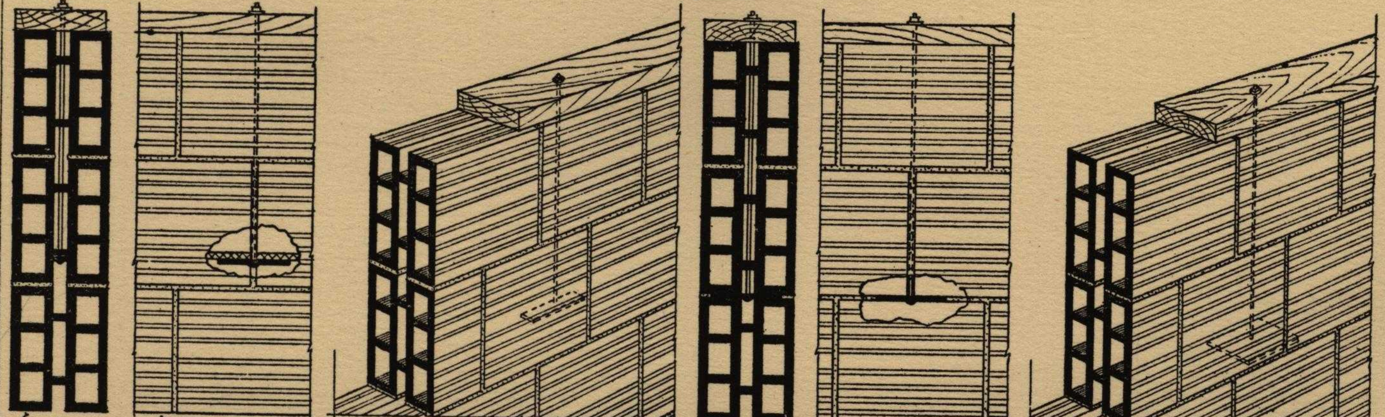
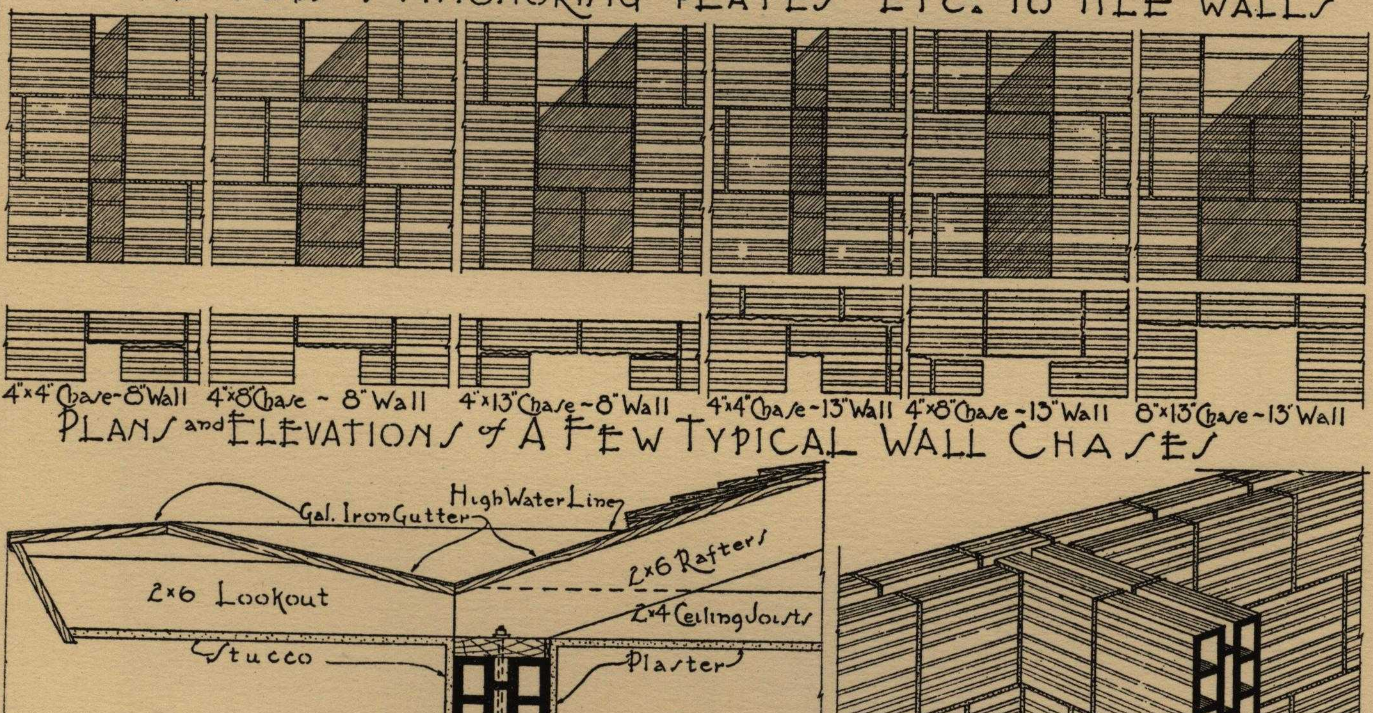
~Scale ¾" = 1'-0"~
Main Details

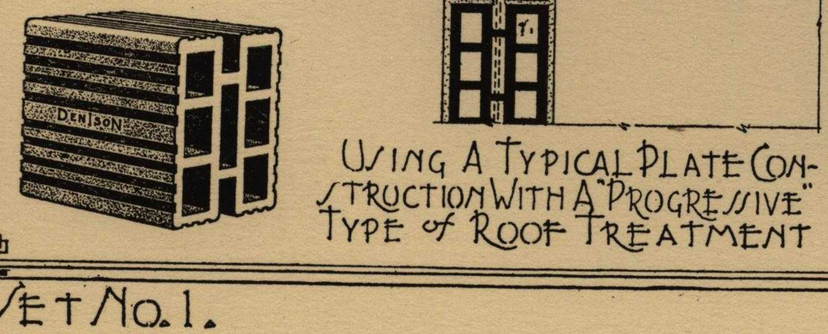
~Scale ½" = 1'-0"~
Chase Details



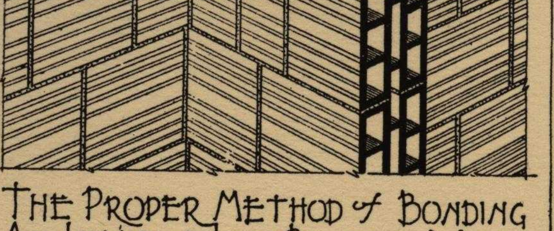
TWO METHODS of ANCHORING PLATES ETC. TO TILE WALLS


4"×4" Chase - 8" Wall 4"×8" Chase ~ 8" Wall 4"×13" Chase ~ 8" Wall 4"×4" Chase ~ 13" Wall 4"×8" Chase ~ 13" Wall 8"×13" Chase ~ 13" Wall

PLANS and ELEVATIONS of A FEW TYPICAL WALL CHASES



USING A TYPICAL PLATE CONSTRUCTION WITH A "PROGRESSIVE" TYPE of ROOF TREATMENT



THE PROPER METHOD of BONDING AN INTERIOR LOAD BEARING WALL

NOTES

LOAD-BEARING TILE

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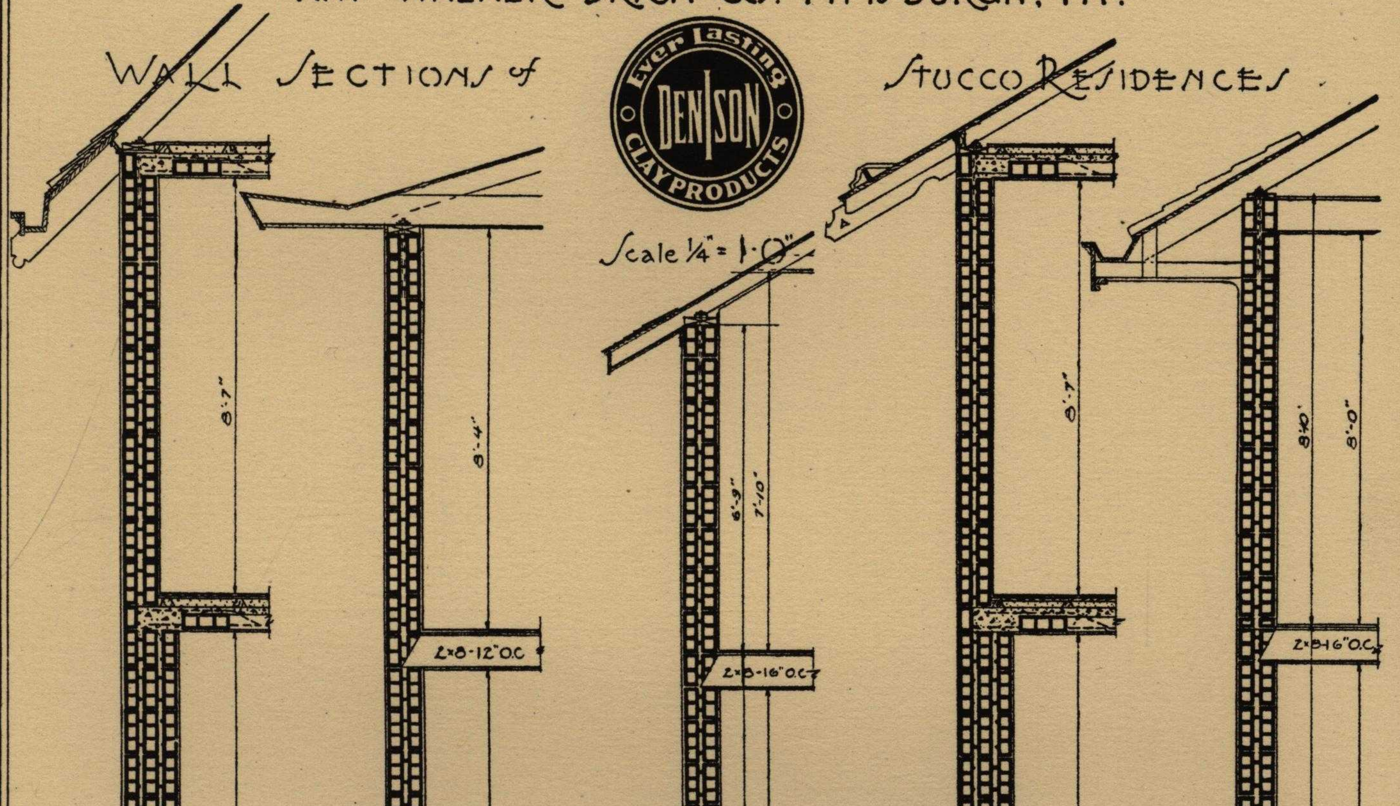
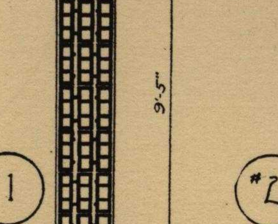
WALL SECTIONS of STUCCO RESIDENCES

Ever Lasting DENISON CLAY PRODUCTS

Scale 1/4" = 1'-0"





#1. 13" Tile Foundation - 13" First Story - 8" Second Story - Fireproof Floors.
#2. 13" Tile Foundation - 8" First Story - 8" Second Story - Fireproof and Wood Floors.
#3. 8" Tile Foundation - 8" First Story - 8" Second Story - Wood Floors.
#4. 13" Concrete Foundation With 3" or 4" Split Tile Furring - 13" First Story - 8" Second Story - Fireproof Floors.
#5. 8" Concrete Foundation With 3" or 4" Split Tile Furring - 8" First Story - 8" Second Story - Wood Floors.

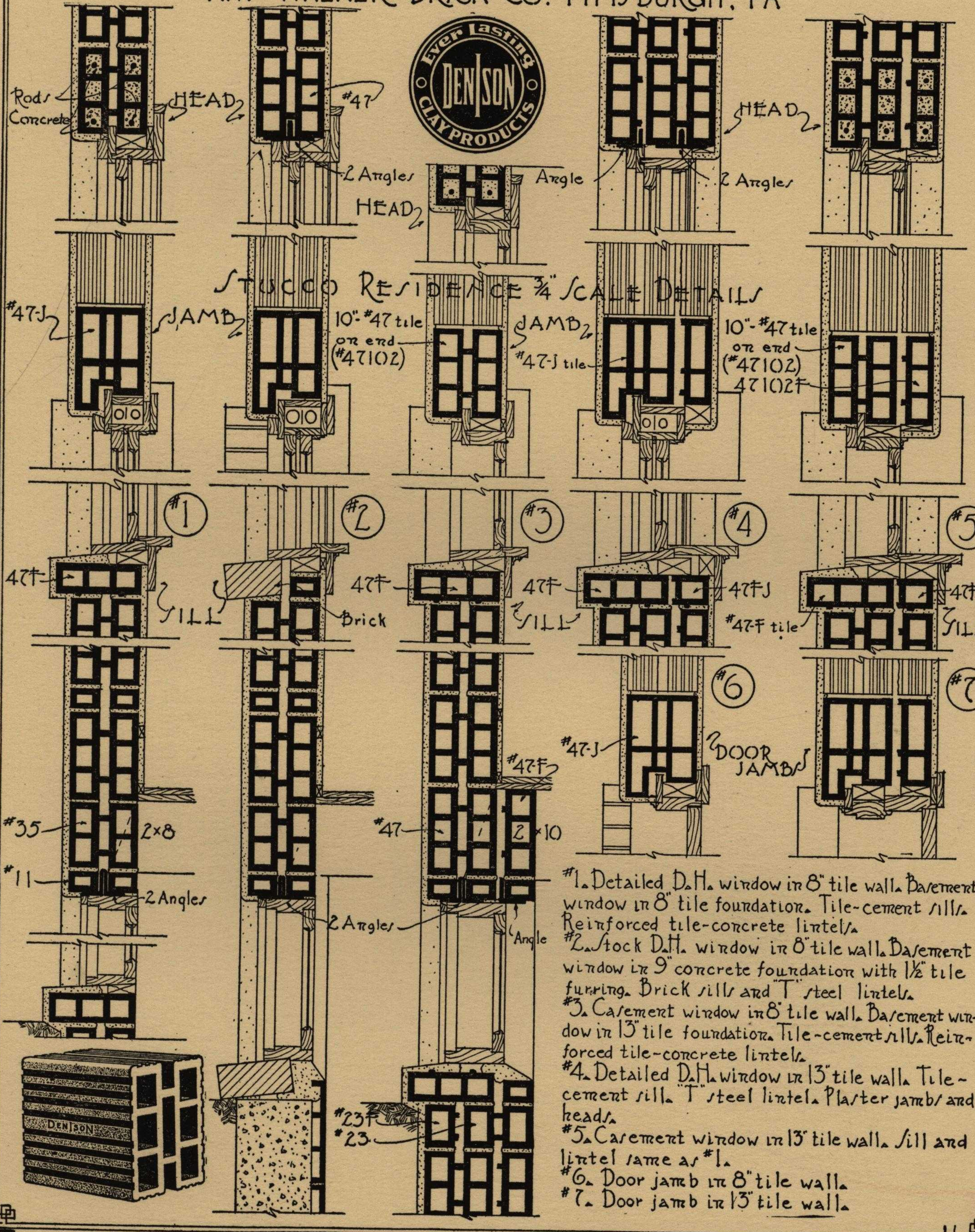
NOTES

LOAD-BEARING TILE

HAY WALKER BRICK CO. PITTSBURGH, PA

Ever Lasting DENISON CLAY PRODUCTS

STUCCO RESIDENCE ¾" SCALE DETAILS



#1. Detailed D.H. window in 8" tile wall. Basement window in 8" tile foundation. Tile-cement sills. Reinforced tile-concrete lintels.
#2. Stock D.H. window in 8" tile wall. Basement window in 9" concrete foundation with 1½" tile furring. Brick sills and "T" steel lintels.
#3. Casement window in 8" tile wall. Basement window in 13" tile foundation. Tile-cement sills. Reinforced tile-concrete lintels.
#4. Detailed D.H. window in 13" tile wall. Tile-cement sill. "T" steel lintel. Plaster jambs and heads.
#5. Casement window in 13" tile wall. Sill and lintel same as #1.
#6. Door jamb in 8" tile wall.
#7. Door jamb in 13" tile wall.

H.W.T. J.J.

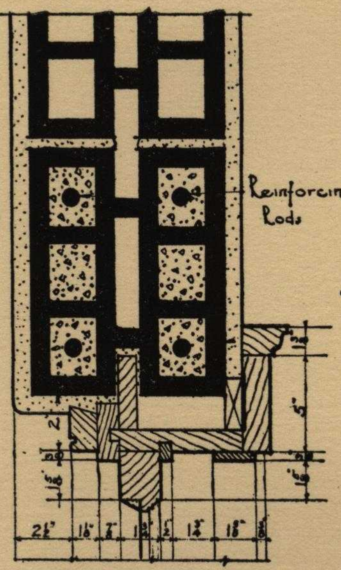
SET NO. 2. SHEET NO. 2.

NOTES

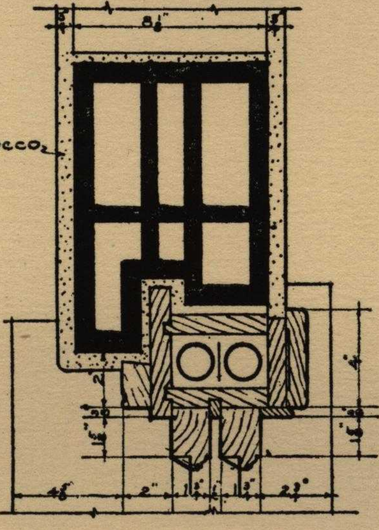
LOAD-BEARING TILE

HAY WALKER BRICK CO. PITTSBURGH, PA.

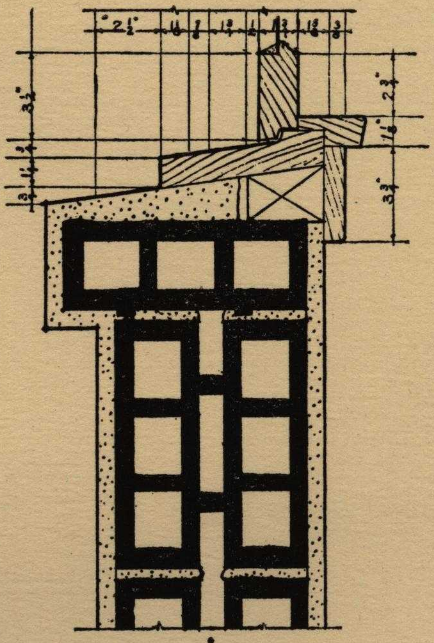
Ever Lasting
DENISON
CLAY PRODUCTS



SECTION THRU HEAD



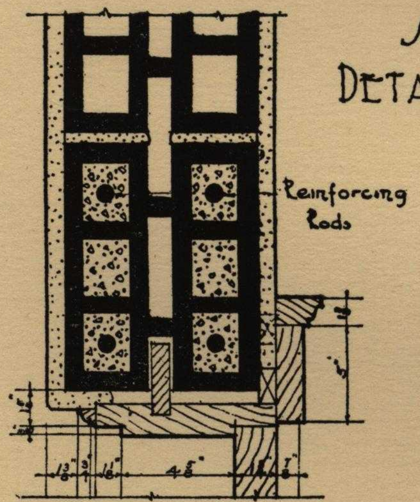
SECTION THRU JAMB



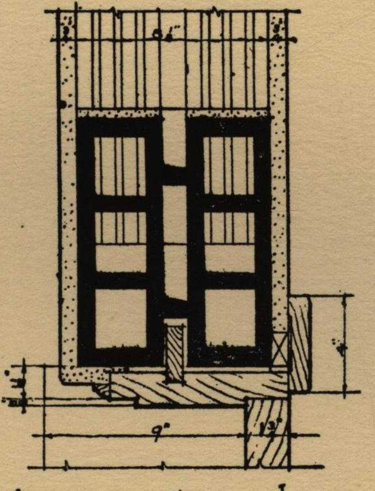
SECTION THRU SILL

DETAILS OF BOX FRAME WINDOW

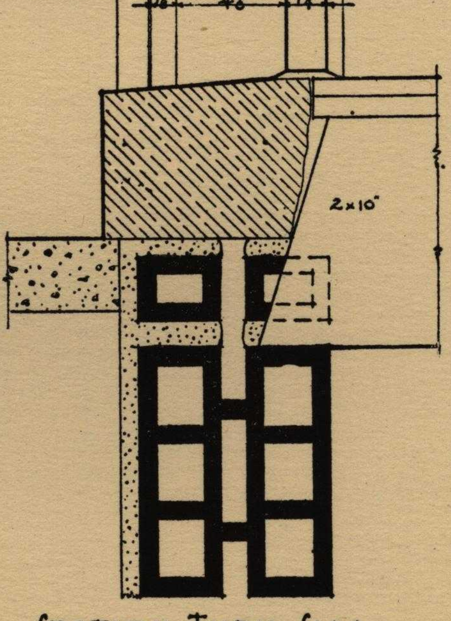
SCALE 1½"=1-0"



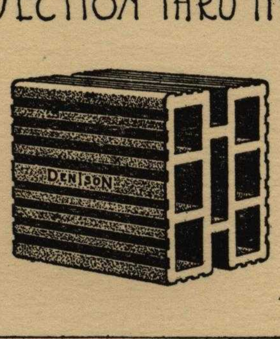
SECTION THRU HEAD



SECTION THRU JAMB



SECTION THRU SILL



DETAIL OF DOOR JAMB

SCALE 1½"=1-0"

NOTES

LOAD-BEARING TILE

HAY WALKER BRICK CO. PITTSBURGH, PA.

Ever Lasting
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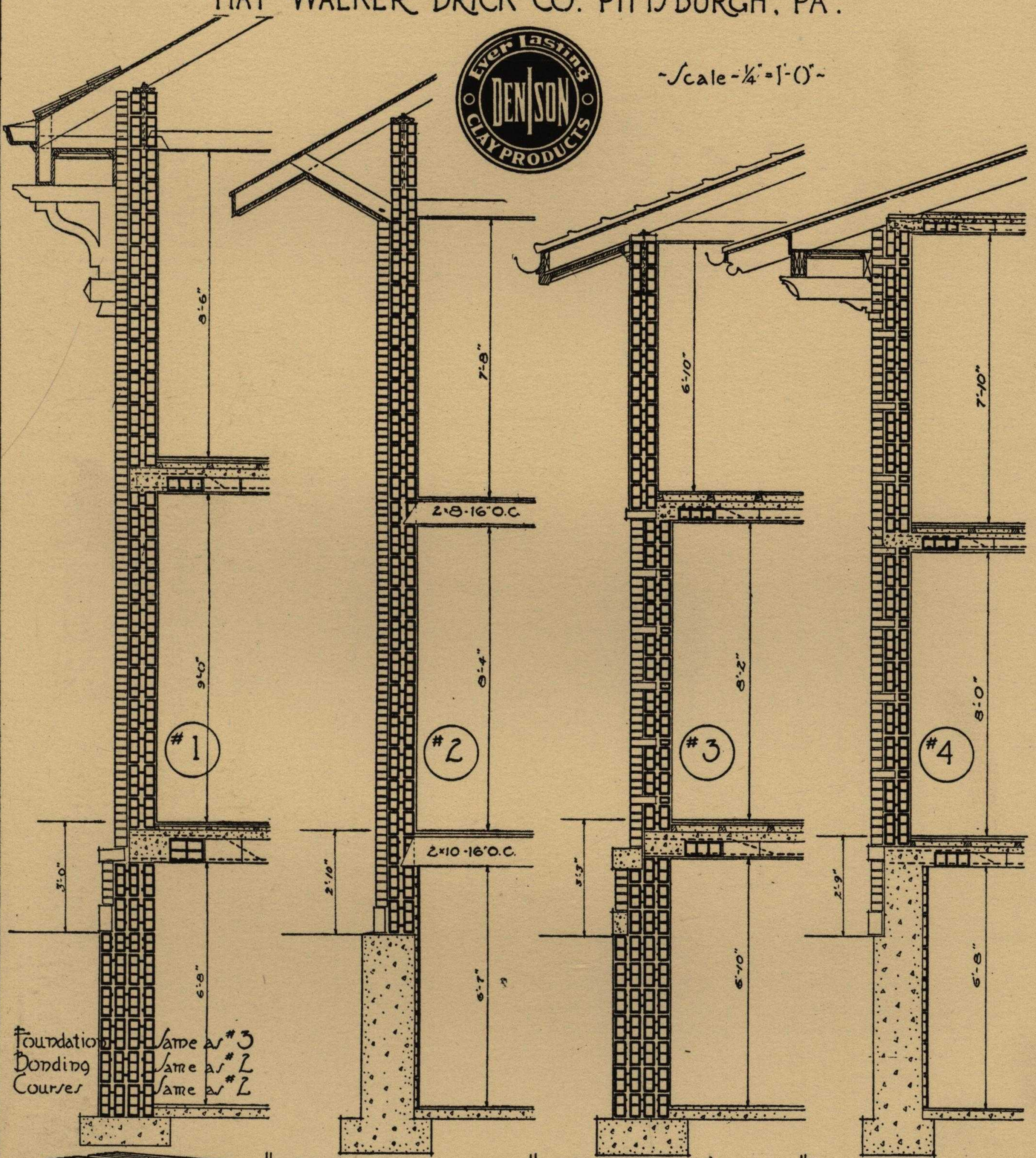
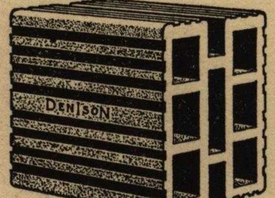
~Scale-¼"=1'-0"~



Foundation Same as #3
Bonding Same as #2
Courses Same as #2



16" Concrete Foundation, 1½" or 2" Split Tile Furring. Upper Stories of 4" Brick Veneer With 8" Tile Backing + Metal Tie Bonding. Figuring 2½" to 2¾" to a Brick Course.

17" Tile Foundation. 4" Brick Veneer-7th Course Header Bonding With 8" Tile Backing in First Story. 8" Tile Stucco Finished Wall Above. Brick Courses Same as #2.

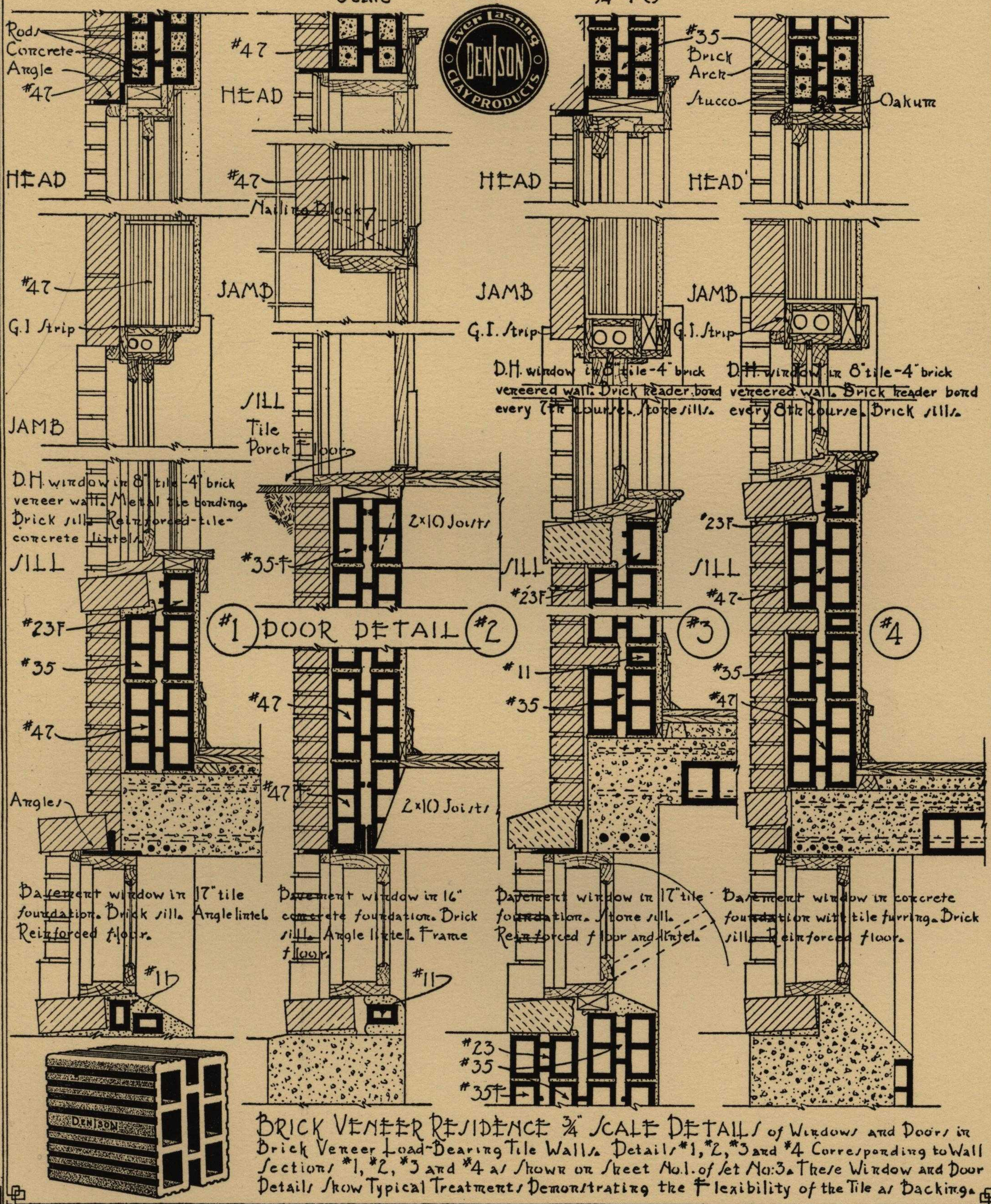
Foundation Same as #2. 4" Brick Veneer Wall With 8th Course Header Bonding and 8" Tile Backing. Figuring 3" to Each Brick Course.

NOTES

LOAD~BEARING TILE

HAY WALKER BRICK CO. PITTSBURGH, PA.

Scale 3/4"=1'-0"



D.H. window in 8" tile-4" brick veneer wall. Metal tie bonding. Brick sills. Reinforced-tile-concrete lintels.

D.H. window in 8" tile-4" brick veneered wall. Brick header bond every 7th course. Stone sills.

D.H. window in 8" tile-4" brick veneered wall. Brick header bond every 8th course. Brick sills.

Basement window in 17" tile foundation. Brick sill. Angle lintel. Reinforced floor.

Basement window in 16" concrete foundation. Brick sill. Angle lintel. Frame floor.

Basement window in 17" tile foundation. Stone sill. Reinforced floor and lintel.

Basement window in concrete foundation with tile furring. Brick sill. Reinforced floor.

BRICK VENEER RESIDENCE 3/4" SCALE DETAILS of Windows and Doors in Brick Veneer Load-Bearing Tile Walls. Details #1, #2, #3 and #4 Corresponding to Wall Sections #1, #2, #3 and #4 as Shown on Sheet No. 1 of Set No. 3. These Window and Door Details Show Typical Treatments Demonstrating the Flexibility of the Tile as Backing.

NOTES

LOAD-BEARING TILE

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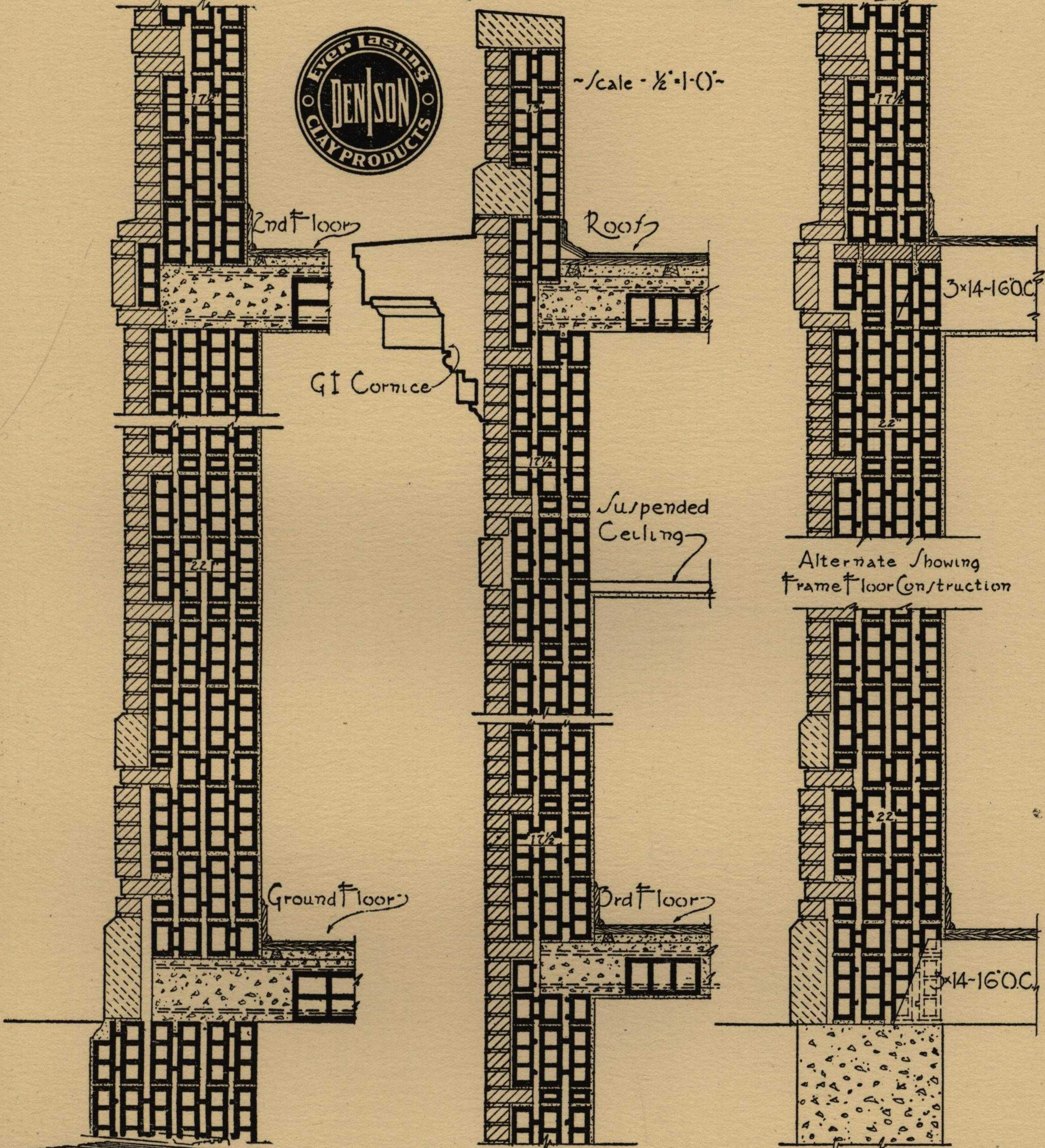
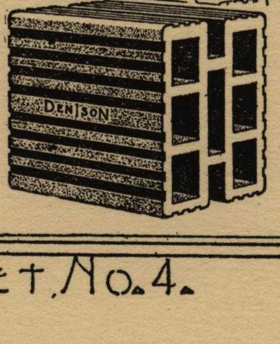


Alternate Showing Frame Floor Construction



Load Bearing Tile Foundation and Reinforced Concrete-Tile Floors & Roof.

Alternate Showing Concrete Foundation.

WALL SECTIONS OF SCHOOL HOUSE CONSTRUCTION
Courtesy of Tyrie & Chapman, Architects.
SHOWING HEADER BONDING OF BRICK VENEER AND STONE TRIM.

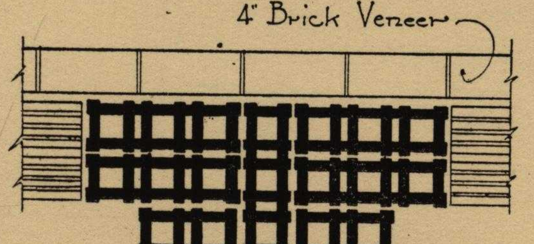
NOTES

LOAD BEARING TILE

HAY WALKER BRICK CO. PITTSBURGH, PA.

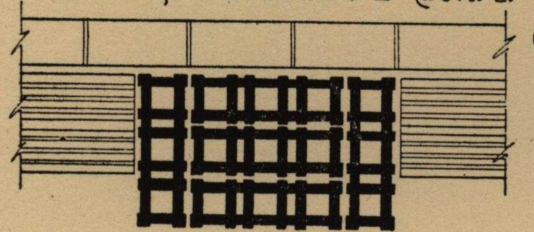
GENERAL DETAILS APPLICABLE to SCHOOL HOUSES & BUILDINGS of SIMILAR CONSTRUCTION

Ever Lasting
DENISON
CLAY PRODUCTS



Safe Loading Capacity 84000 lbs. Gross Tile Area.

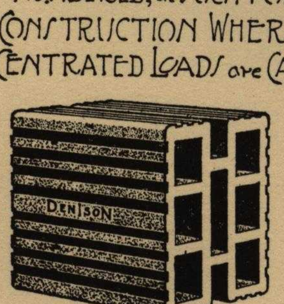
PLANS
SHOWING ALTERNATE COURSES

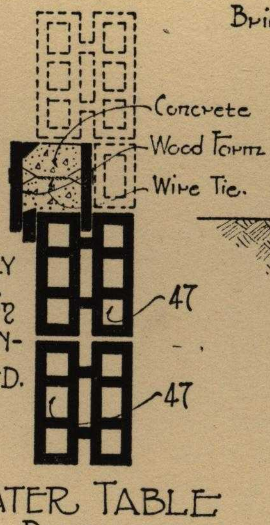


DETAILS SHOWING PIER CONSTRUCTION

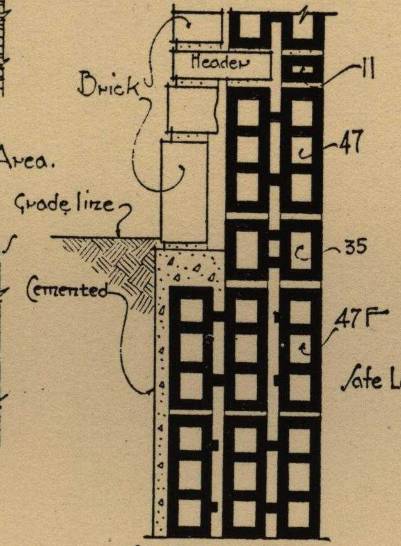
Scale 3/4" = 1'-0"

NOTE—
PEIR TILE ARE MADE in FOUR SIZES: 47P, 35P, 23P and 11P AND ARE TO BE USED in CONJUNCTION WITH the REGULAR DENISON LOAD BEARING TILE, RESPECTIVELY NUMBERED, at SUCH POINTS in CONSTRUCTION WHERE CONCENTRATED LOADS are CARRIED.

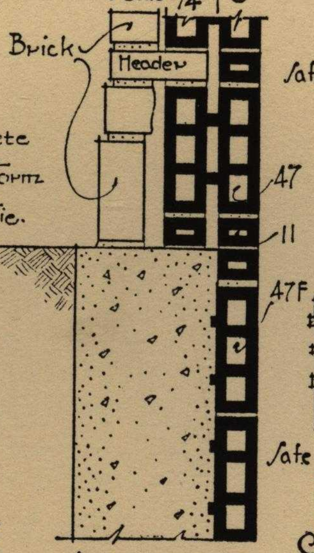




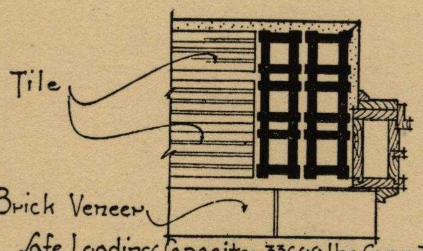
WATER TABLE DETAIL
SHOWING FORM in PLACE
Scale 3/4" = 1'-0"



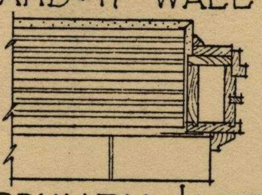
SECTION THRU. 12 3/4 FOUNDATION WALL
Scale 3/4" = 1'-0"



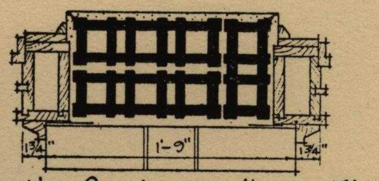
ALTERNATE
SHOWING CONCRETE FOUNDATION WALL WITH TILE FURRING



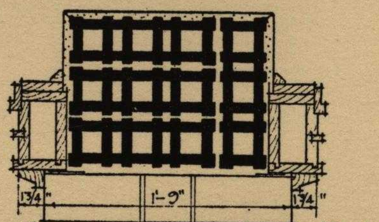
Safe Loading Capacity 33600 lbs. Gross Tile Area.
JAMB – 17" WALL



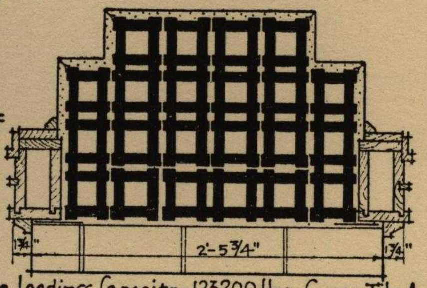
ORDINARY JAMB



Safe Loading Capacity 44800 lbs. Gross Tile Area.
12 3/4" WALL MULLION



Safe Loading Capacity 67200 lbs. Gross Tile Area.
17" WALL MULLION



Safe Loading Capacity 123200 lbs. Gross Tile Area.
22" WALL MULLION—

JAMB & MULLION DETAILS SHOWING USE of PEIR TILE
Scale 3/4" = 1'-0"

EDC

NOTES

LOAD-BEARING TILE

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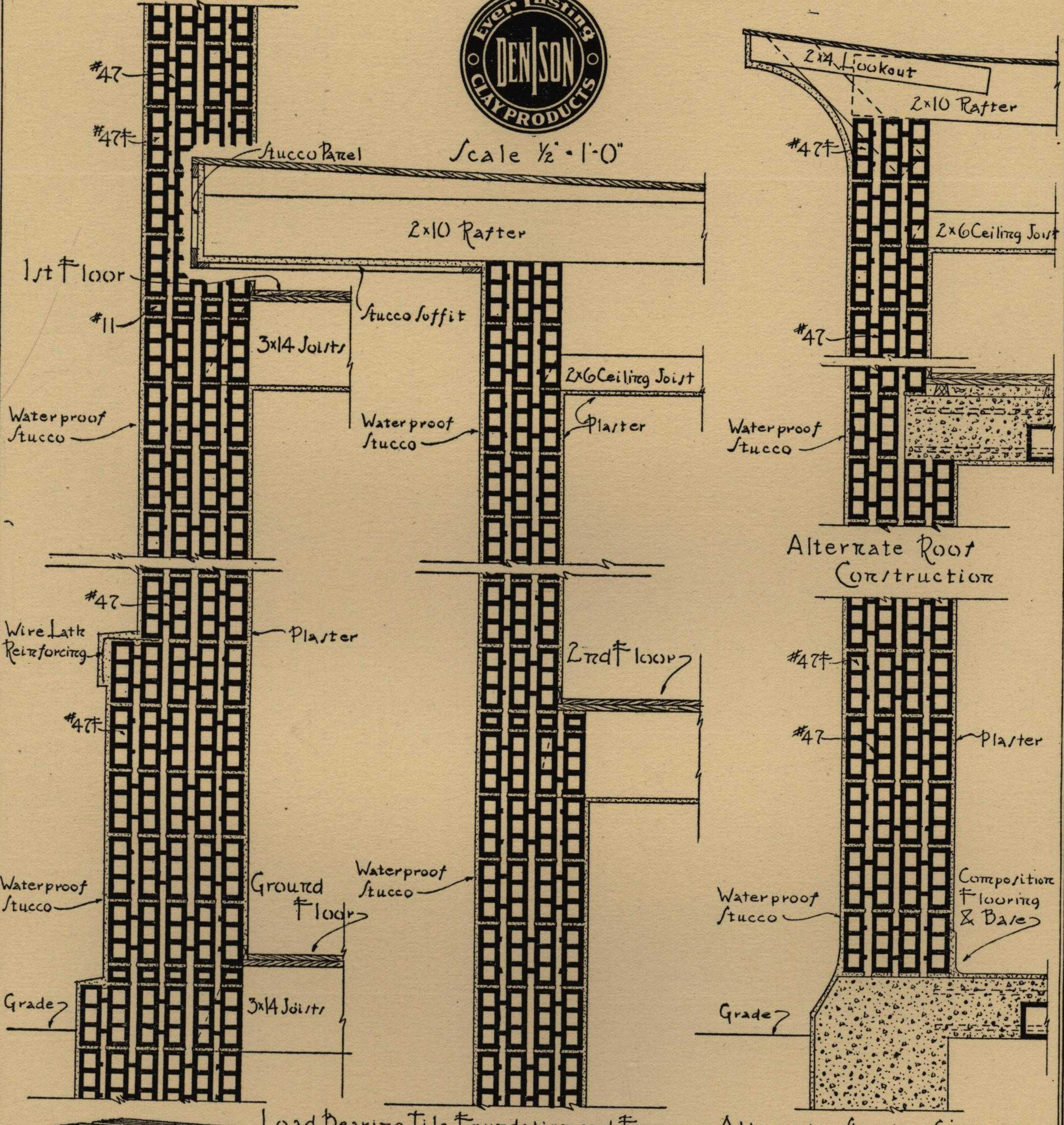
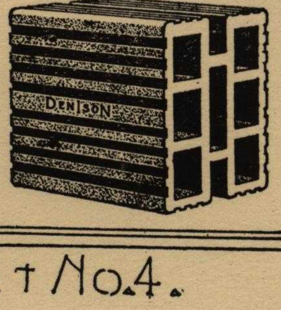
Ever Lasting DENISON CLAY PRODUCTS





Load Bearing Tile Foundation and Frame Constructed Floors and Roofs.

Alternate Showing Concrete Foundation and Fireproof Floors.

WALL SECTIONS OF SCHOOL HOUSE CONSTRUCTION
SHOWING WATER-PROOF STUCCO FINISH WITH STUCCO TRIM
AND "PROGRESSIVE" TYPES OF ROOF DESIGN

Set No. 4.

Sheet. No. 3.

NOTES

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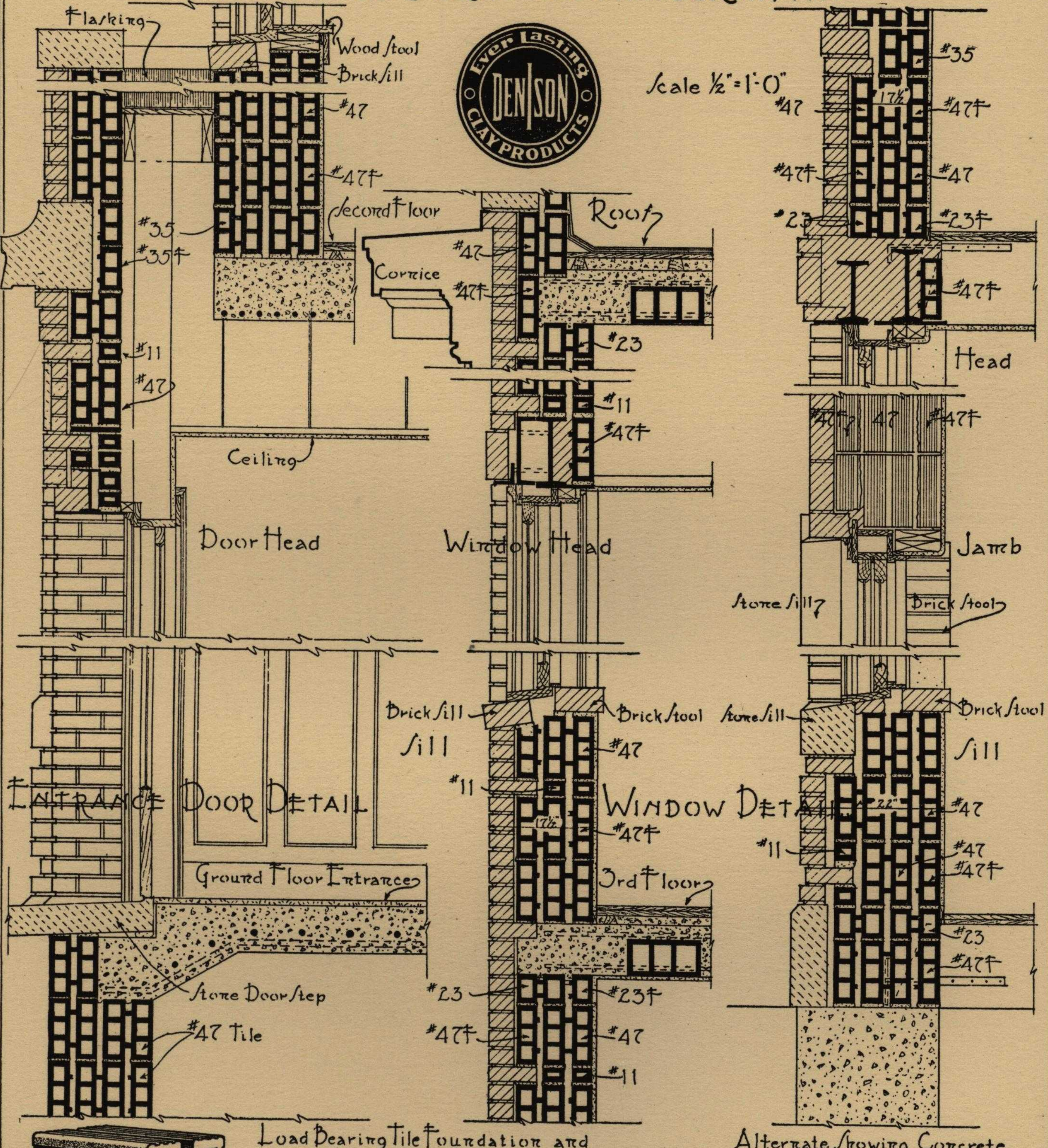
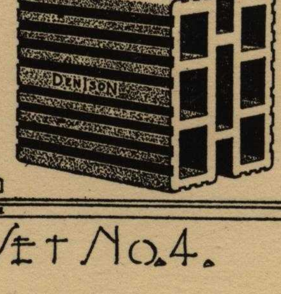


Load Bearing Tile Foundation and Reinforced Concrete~Tile Floors & Roof.

Alternate Showing Concrete Foundation and Frame Floors.



SCALE DETAILS OF SCHOOL HOUSE CONSTRUCTION

Entrance Door and Window Details of Walls on Sheet 1, Set. 4.

SHOWING HEADER BONDING OF BRICK VENEER AND STONE TRIM.

SET NO. 4.

SHEET. NO. 4.

NOTES

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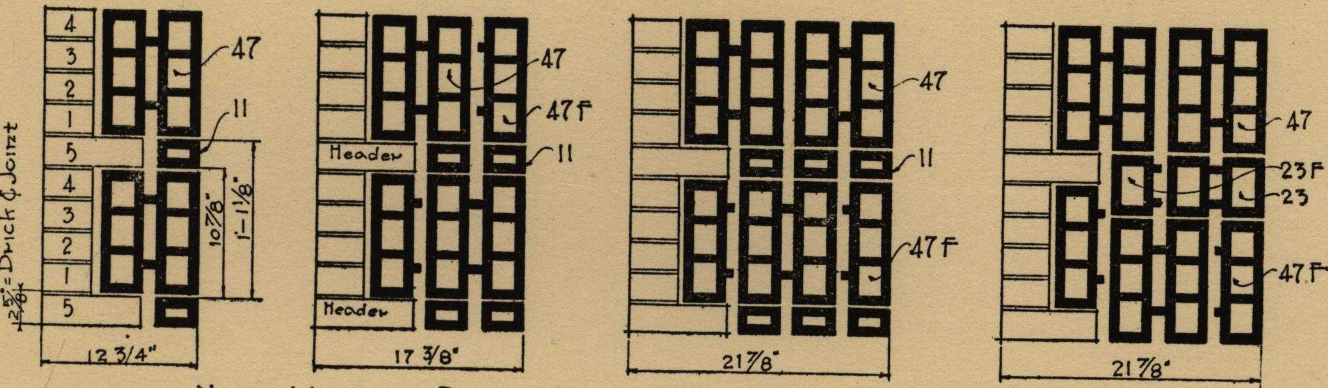
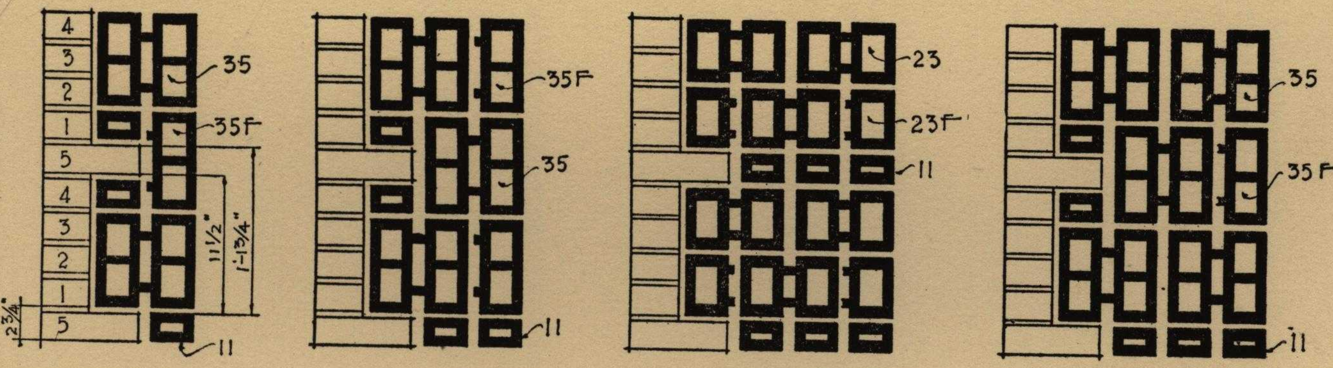
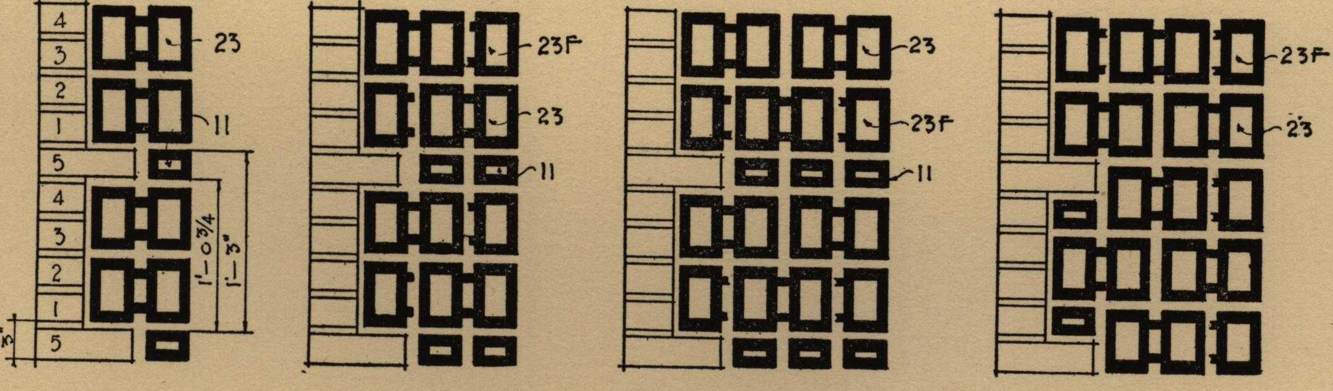


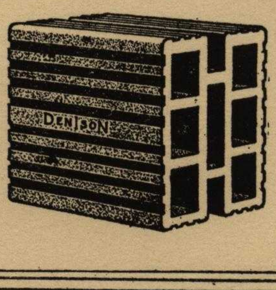
Note Walls are Dimensioned Giving Their Exact Thickness



Note: For 2 5/8" Brick & Joint Use same Bond as Shown With 2 3/4"



13" WALL 17" WALL 22" WALL 22" WALL



FIFTH COURSE HEADER DETAILS

SCALE 3/4" = 1'-0"

SET No 5

SHEET No 1

NOTES

LOAD BEARING TILE

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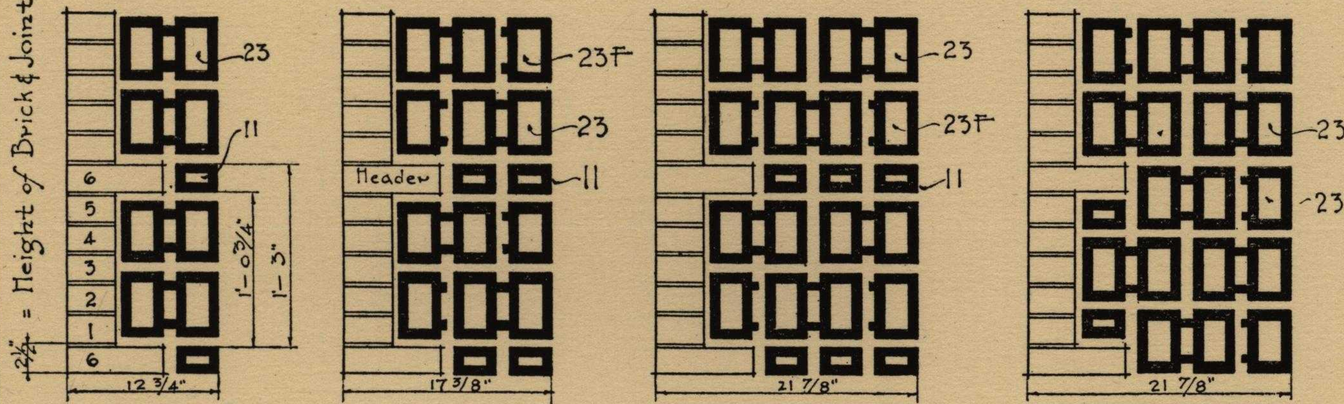
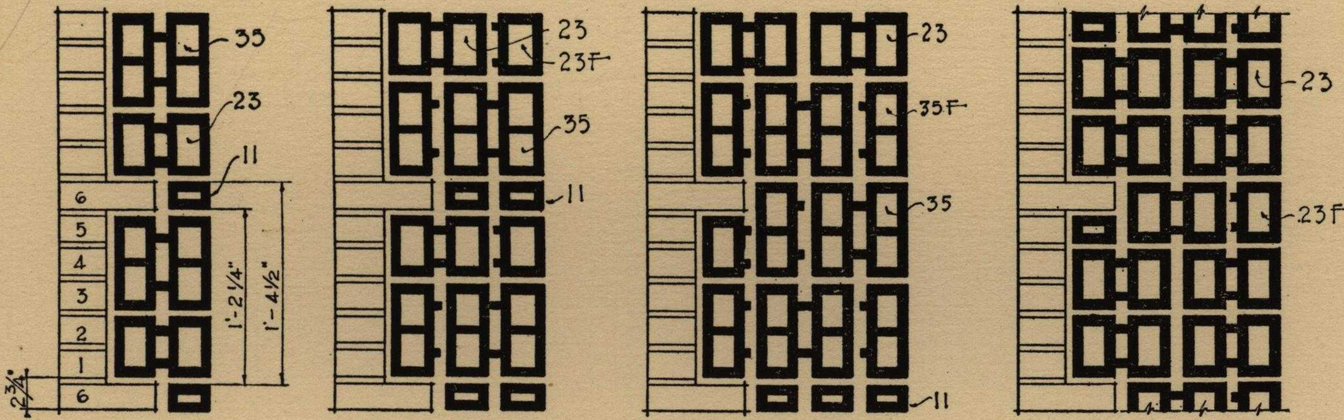
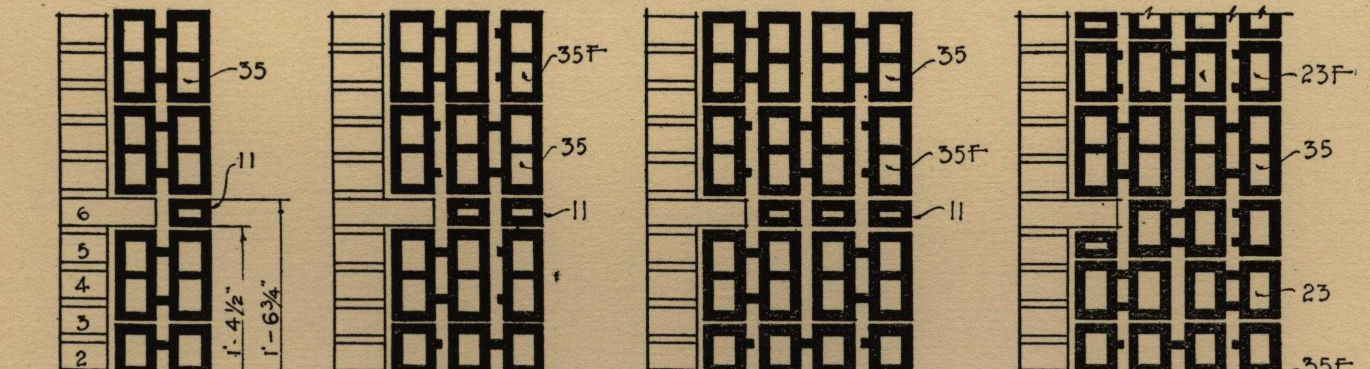


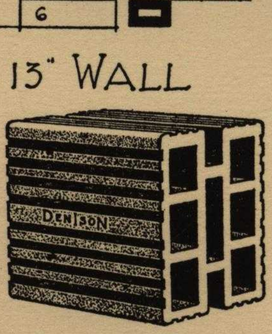
NOTE · Walls are Dimensioned Giving Their Exact Thickness



NOTE For 2 5/8" Brick & Joint Use Same Bond as Shown With 2 3/4"



13" WALL 17" WALL 22" WALL 22" WALL



SIXTH COURSE HEADER DETAILS

SCALE 3/4:1'-0"

EDC

SET No 5 SHEET No 2

NOTES

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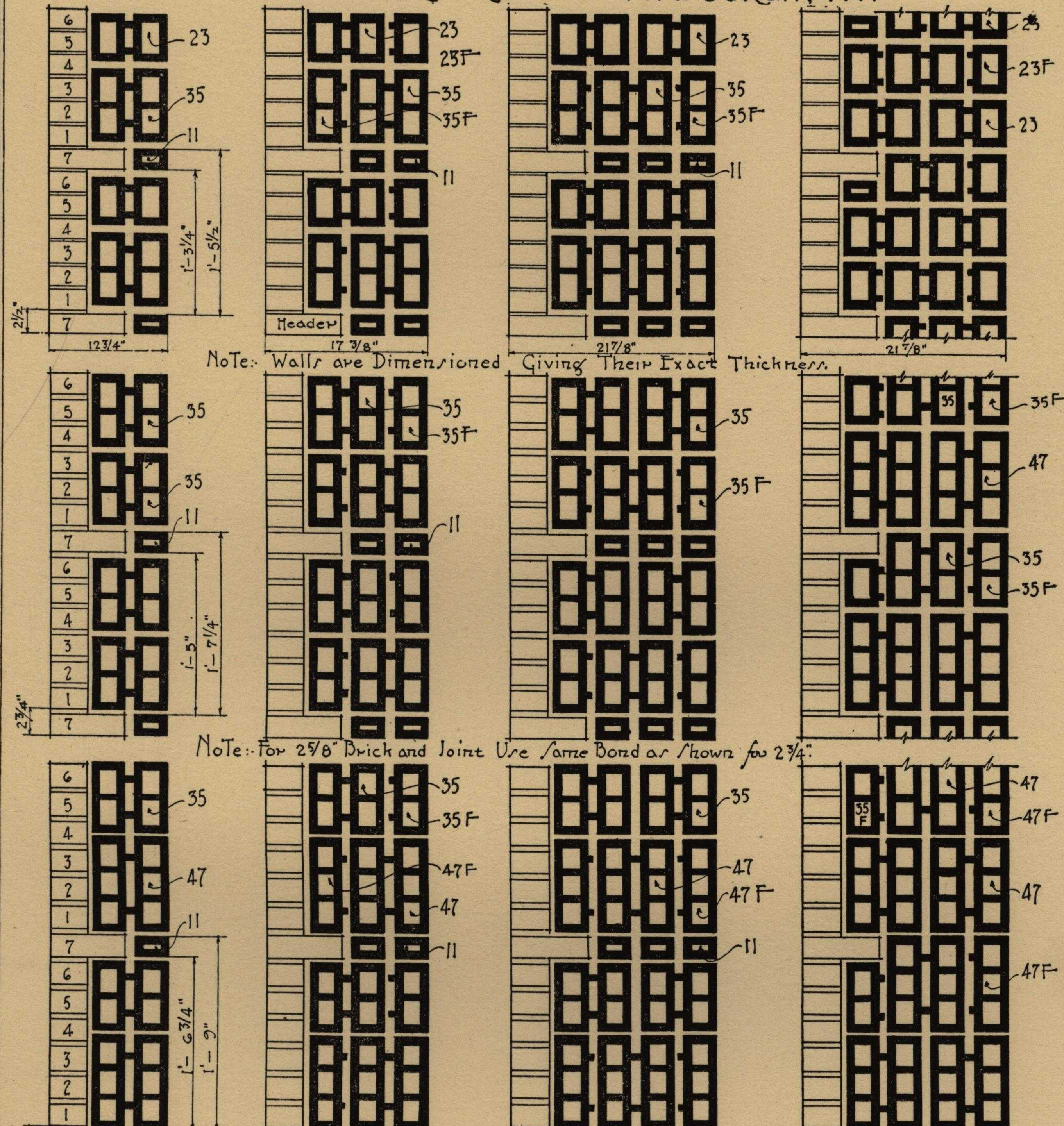
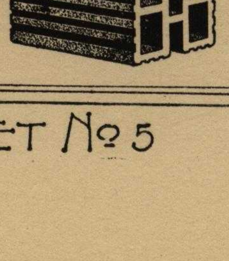


NOTE:- Walls are Dimensioned Giving Their Exact Thickness.

NOTE:- For 2 5/8" Brick and Joint Use Same Bond as Shown for 2 3/4".



SEVENTH COURSE HEADER DETAILS

SCALE 3/4": 1'-0"

Ever Lasting DENISON CLAY PRODUCTS

F.D.C.

SET No 5

SHEET No 3

NOTES

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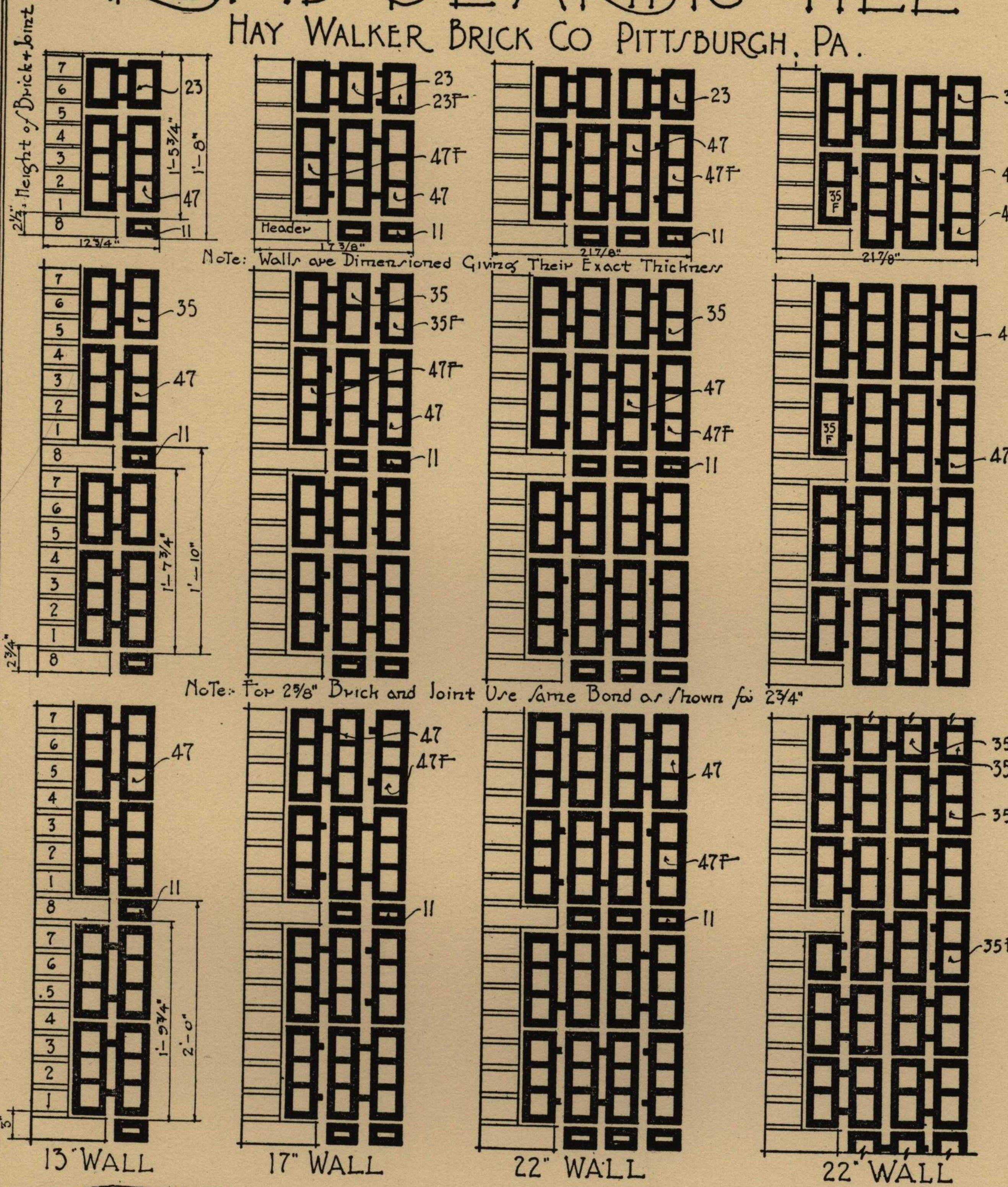
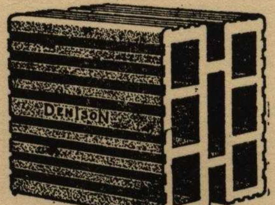


Note: Walls are Dimensioned Giving Their Exact Thickness

Note: For 2 5/8" Brick and Joint Use Same Bond as Shown for 2 3/4"



EIGTH COURSE HEADER DETAILS

SCALE 3/4"·1'-0"

Ever Lasting DENISON CLAYPRODUCTS

P.D.C.

SET No 5

SHEET No 4

NOTES

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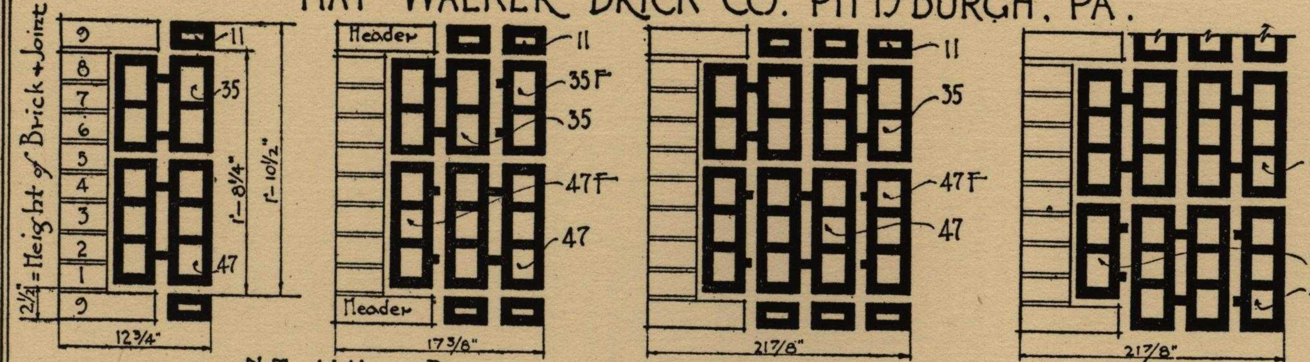
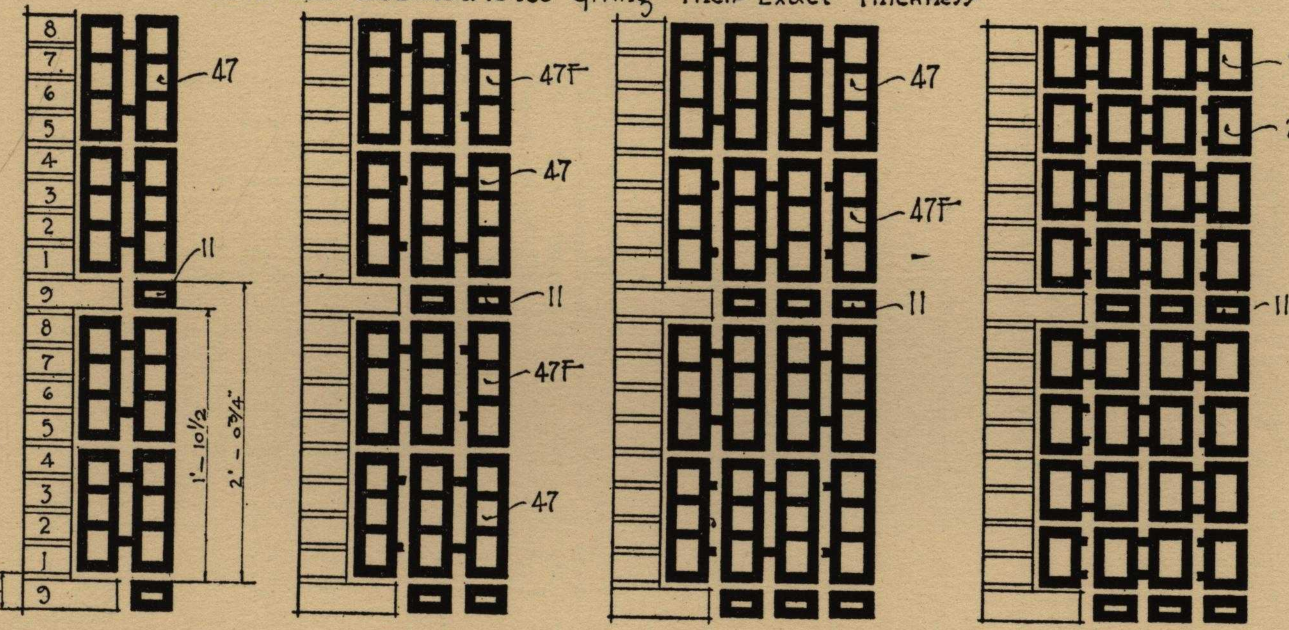
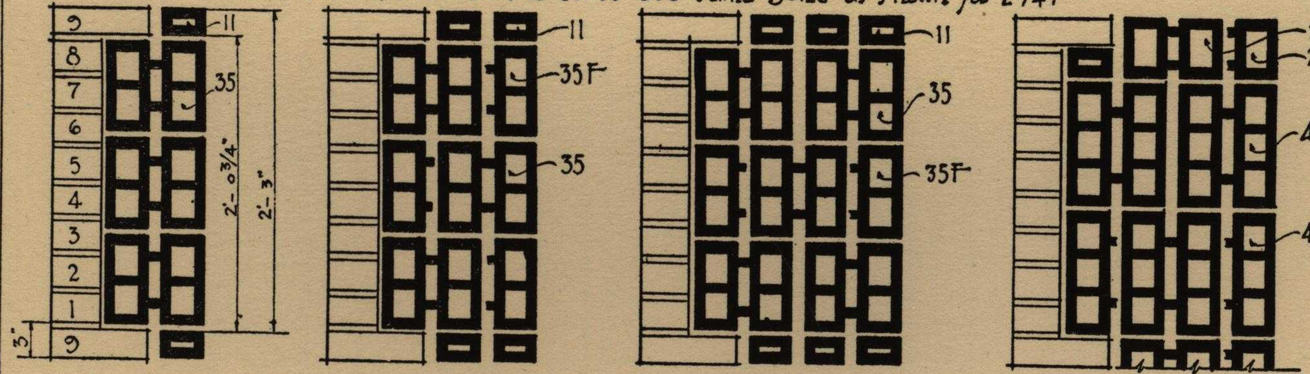


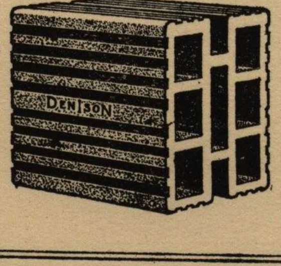
Note:- Walls are Dimensioned Giving Their Exact Thickness



Note:- For 2 5/8" Brick and Joint Use Same Bond as Shown for 2 3/4".



13" WALL 17" WALL 22" WALL 22" WALL



NINTH COURSE HEADER DETAILS

SCALE 3/4" = 1'-0"

F.D.C.

SET No 5

SHEET No 5

NOTES

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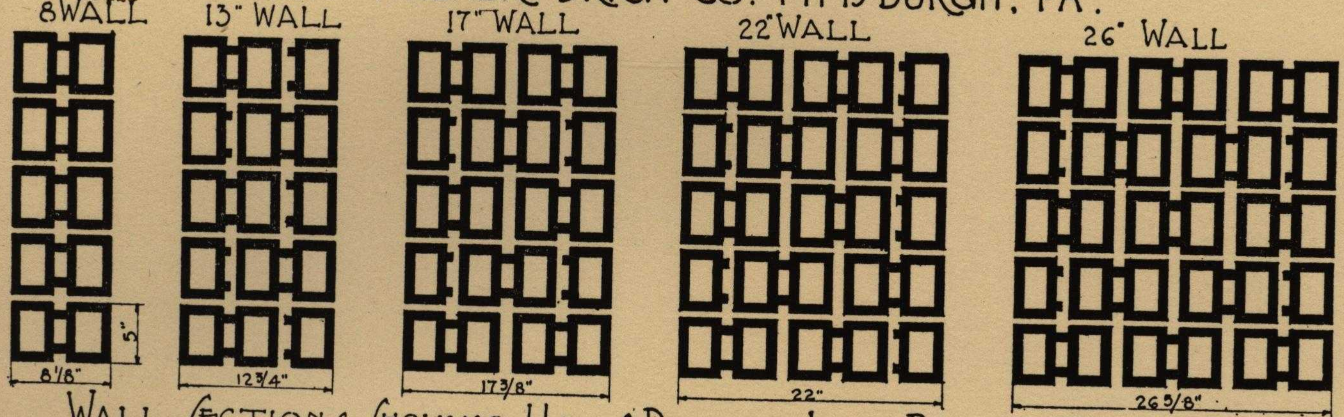
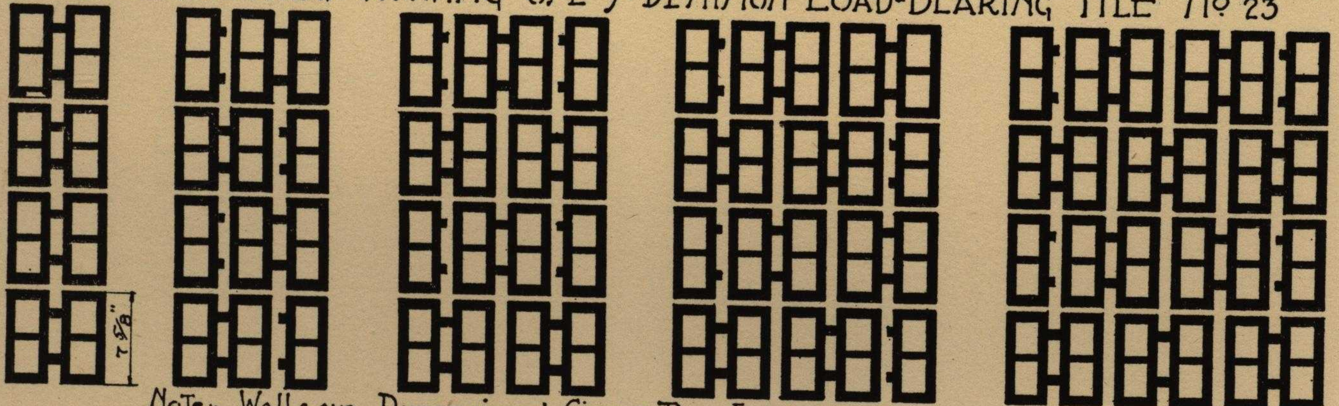
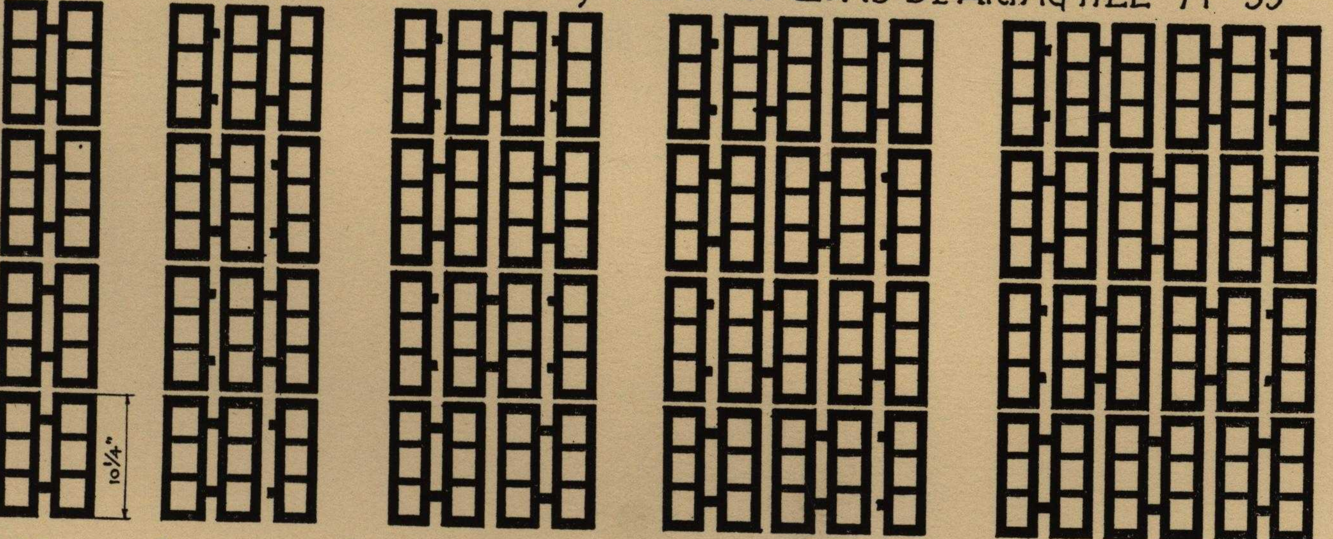


WALL SECTIONS SHOWING USE OF DENISON LOAD-BEARING TILE No 23

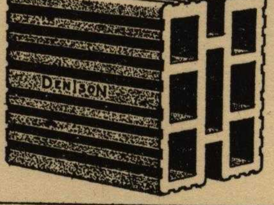


NOTE:- Walls are Dimensioned Giving Their Exact Thickness

WALL SECTIONS SHOWING USE OF DENISON LOAD-BEARING TILE No 35



WALL SECTIONS SHOWING USE OF DENISON LOAD-BEARING TILE No 47



ALL TILE
WALL DETAILS

SCALE 3/4" = 1'-0"

Ever Lasting DENISON CLAY PRODUCTS

SET No 5

E.D.C.

SHEET No 6

NOTES

LOAD-BEARING TILE

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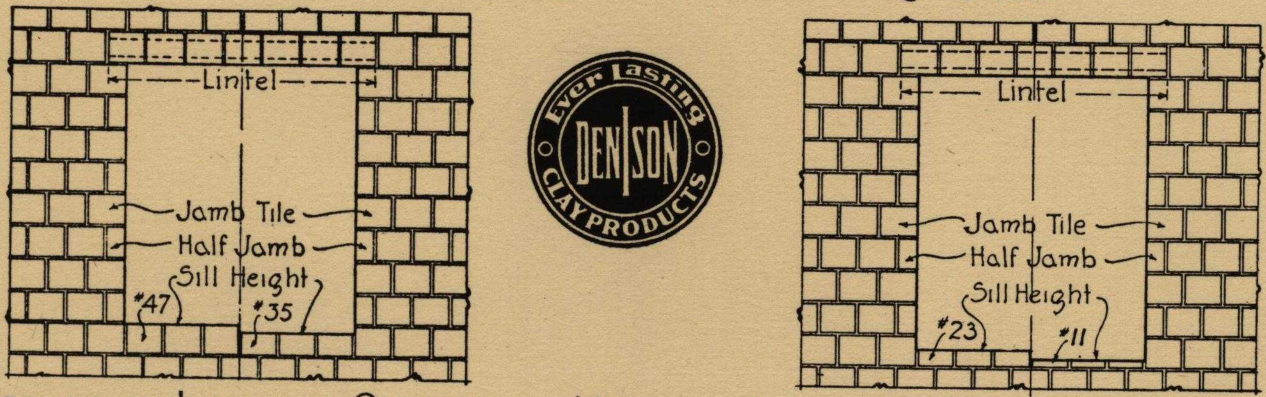
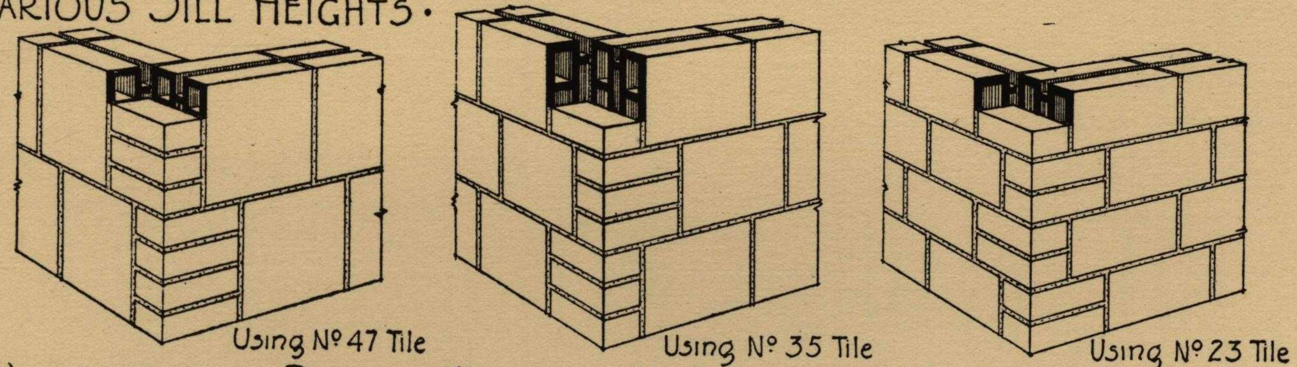


• METHOD OF LAYING UP OPENINGS OF VARIOUS HEIGHTS AND OF ARRIVING AT VARIOUS SILL HEIGHTS •



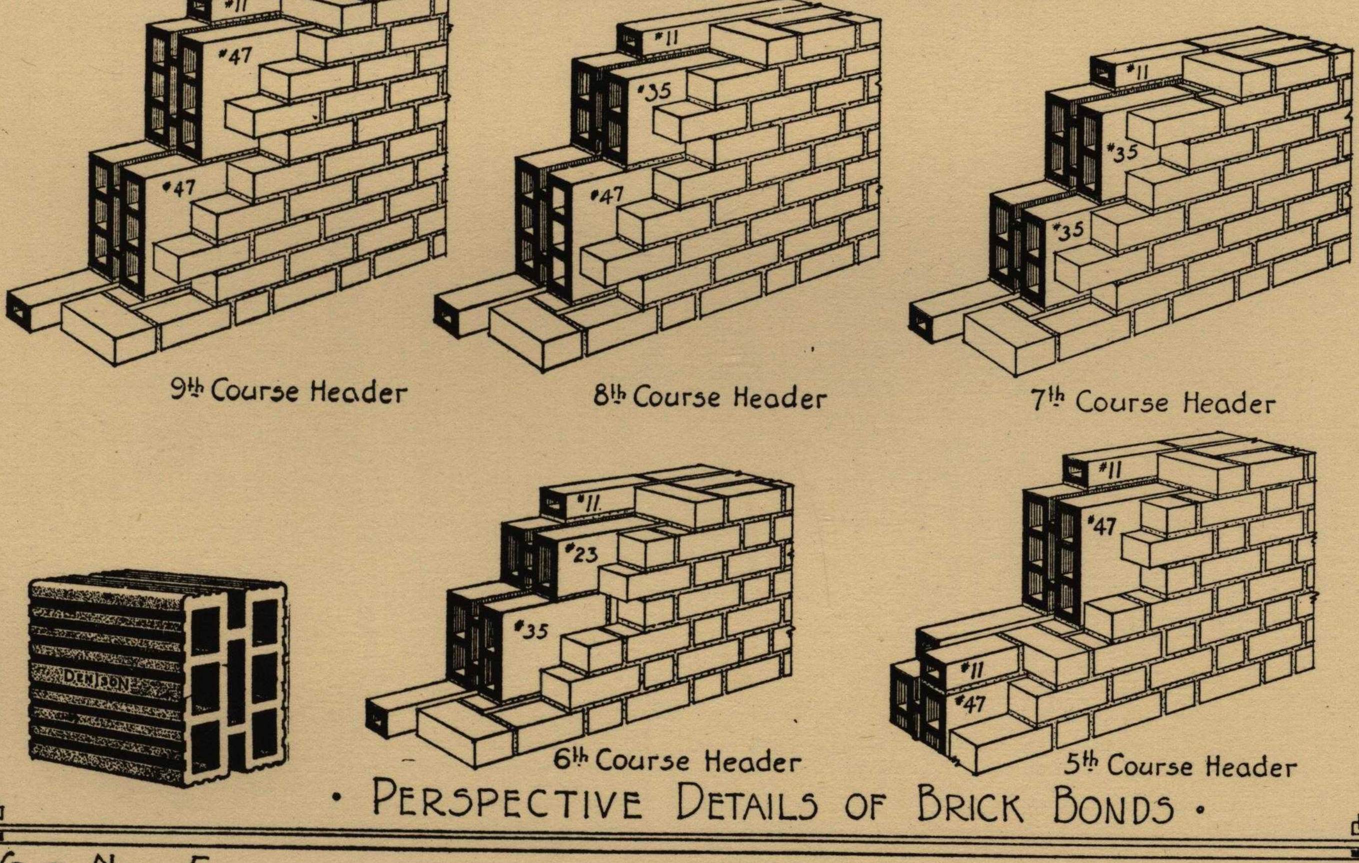
Using No. 47 Tile

Using No. 35 Tile

Using No. 23 Tile

• PERSPECTIVE DETAILS TURNING CORNER OF WALL WITH BRICK •

For tile corner detail see Set No. 1 Sheet No. 5



9th Course Header

8th Course Header

7th Course Header

6th Course Header

5th Course Header

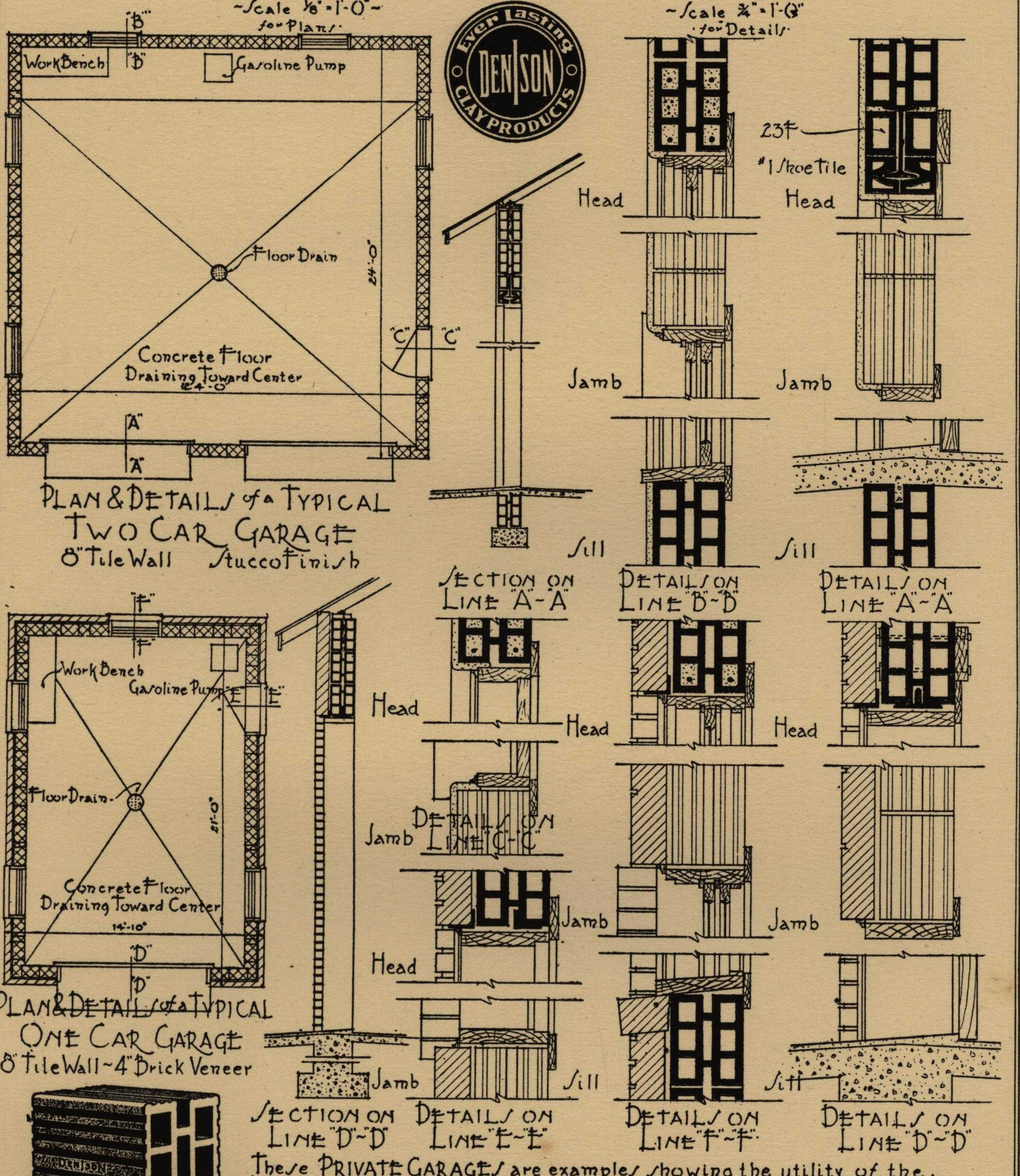
• PERSPECTIVE DETAILS OF BRICK BONDS •

NOTES

LOAD-BEARING TILE

HAY WALKER BRICK CO. PITTSBURGH, PA.

EverLasting DENISON CLAY PRODUCTS



PLAN & DETAILS of a TYPICAL
TWO CAR GARAGE
8" Tile Wall Stucco Finish

SECTION ON LINE "A"-"A"

DETAILS ON LINE "B"-"B"

DETAILS ON LINE "A"-"A"

DETAILS ON LINE "C"-"C"

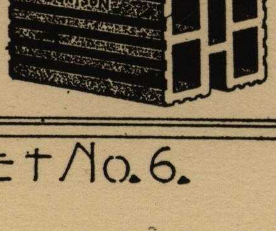
PLAN & DETAILS of a TYPICAL
ONE CAR GARAGE
8" Tile Wall ~ 4" Brick Veneer

SECTION ON LINE "D"-"D"

DETAILS ON LINE "E"-"E"

DETAILS ON LINE "F"-"F"

DETAILS ON LINE "D"-"D"



These PRIVATE GARAGES are examples showing the utility of the DENISON LOAD BEARING TILE. Details illustrate various lintel constructions. Interior wall surfaces are of the tile, which can be furnished with out scoring on the inside, when requested.

N.J.

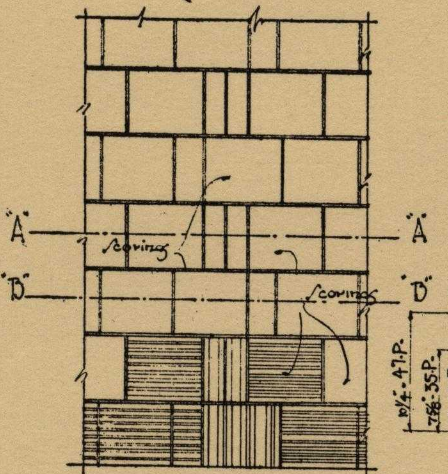
SET No. 6. SHEET No. 1.

NOTES

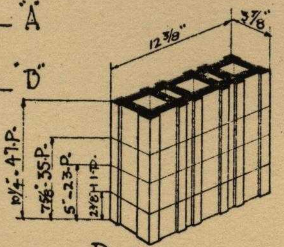
LOAD-BEARING TILE

HAY WALKER BRICK CO. PITTSBURGH, PA.

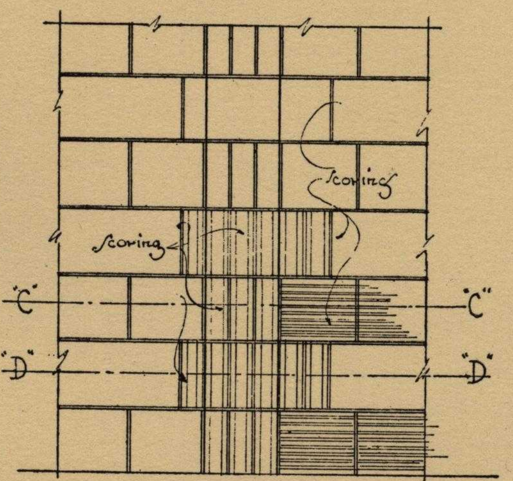
COLUMN & PILASTER BLOCK CONSTRUCTION



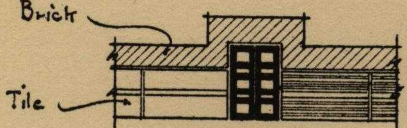
ELEVATION



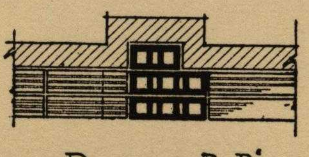
DETAIL of COLUMN & PILASTER BLOCK
The different heights obtainable in this Tile are shown by Dimensions.



ELEVATION

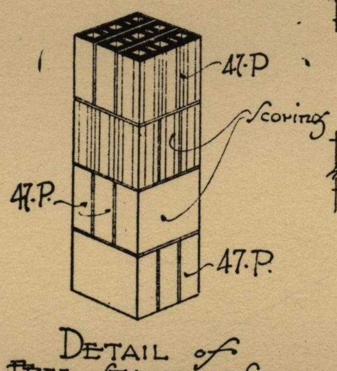


PLAN at "A-A"

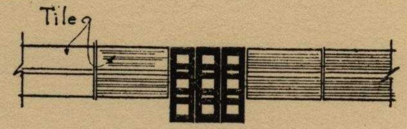


PLAN at B-B'

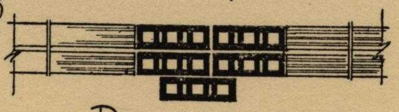
PILASTER DETAIL
Scale 3/8"=1'-0"



DETAIL of FREE STANDING COLUMN

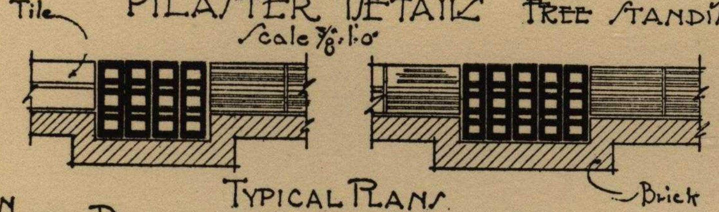


PLAN at C-C



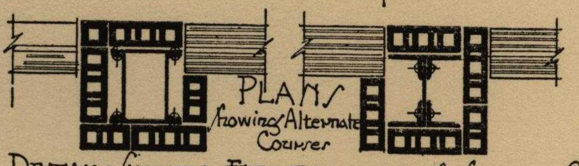
PLAN of D-D

PILASTER DETAIL
Scale 3/8"=1'-0"

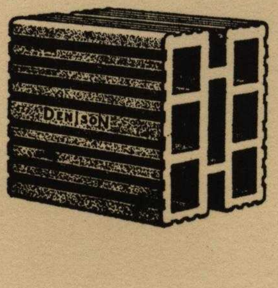


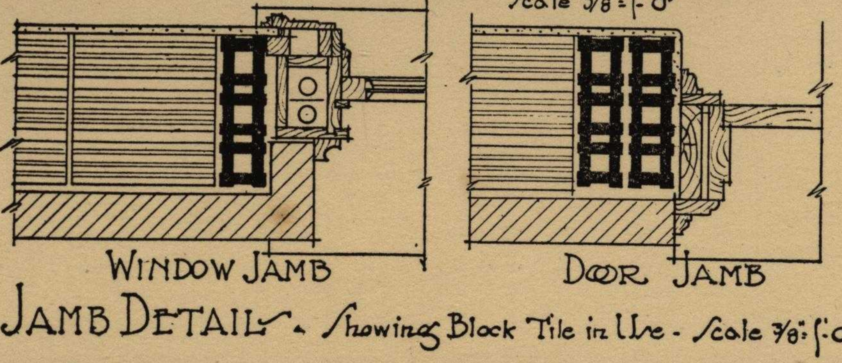
TYPICAL PLANS

NOTE: Piers may be built of different sizes To suit any load.



DETAIL SHOWING FIRE-PROOFING of STEEL COL.
Scale 3/8"=1'-0"





WINDOW JAMB

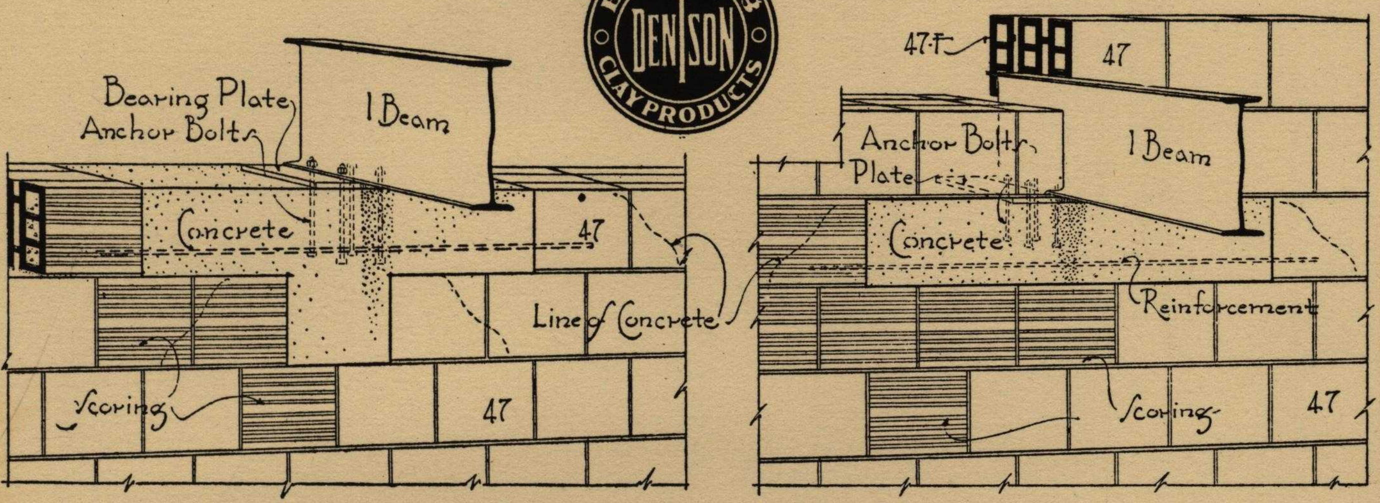
DOOR JAMB

JAMB DETAIL - Showing Block Tile in Use - Scale 3/8"=1'-0"

NOTES

LOAD BEARING TILE

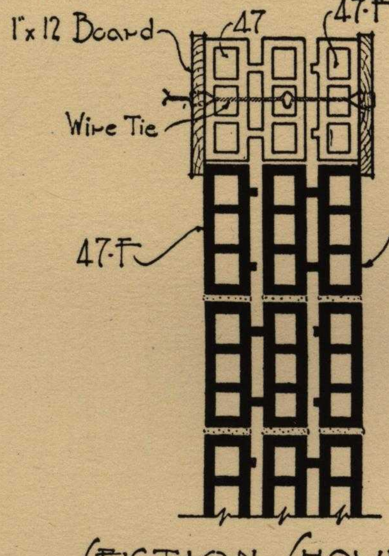
HAY WALKER BRICK CO. PITTSBURGH, PA.



SKETCHES SHOWING METHODS USED to DISTRIBUTE CONCENTRATED LOAD on DENISON L.B. TILE WALL

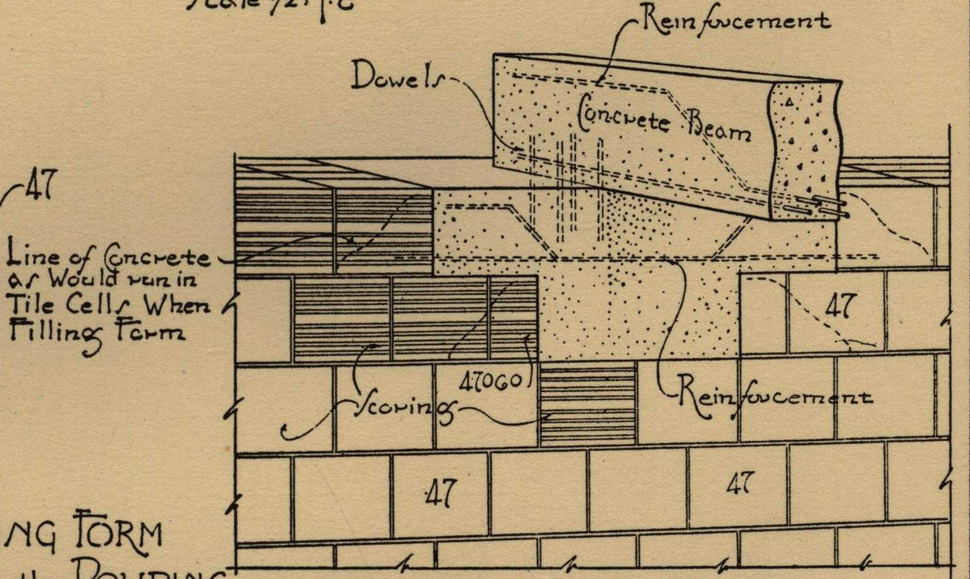
BEAMS ANCHORED as SHOWN SERVE as TIE BETWEEN WALLS

Scale 1/2" = 1'0"



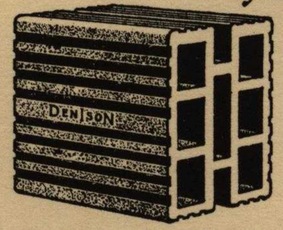
SECTION SHOWING FORM in PLACE READY for the POURING of CONCRETE

Scale 3/4" = 1'0"



ALTERNATE SHOWING CONCRETE BEAM

Scale 1/2" = 1'0"



CONSTRUCTION DETAILS for SCHOOLS THEATERS ARMORIES ETC.

SET No 7 SHEET No 2

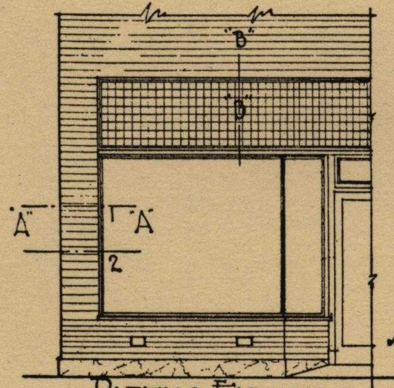
NOTES

LOAD-BEARING TILE

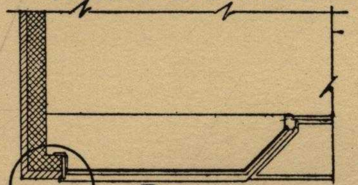
HAY WALKER BRICK CO. PITTSBURGH, PA.

Ever Lasting DENISON CLAY PRODUCTS

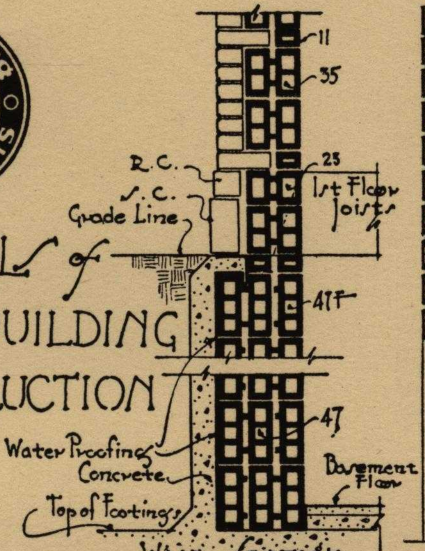
DETAIL of STORE BUILDING CONSTRUCTION



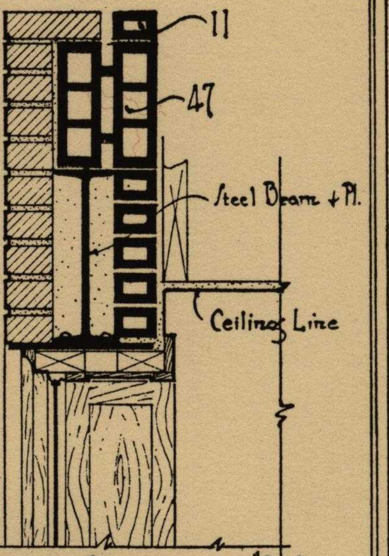
PARTIAL ELEVATION



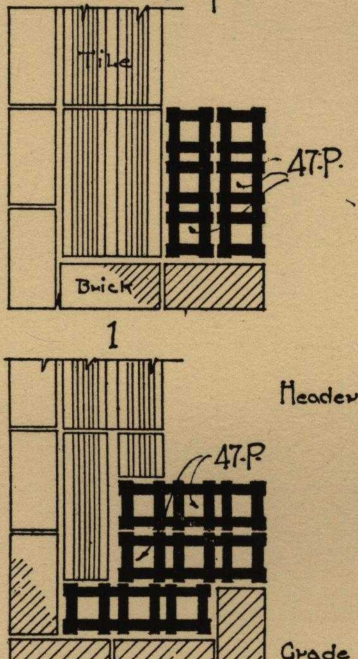
PLAN
Scale 1/8" = 1'-0"



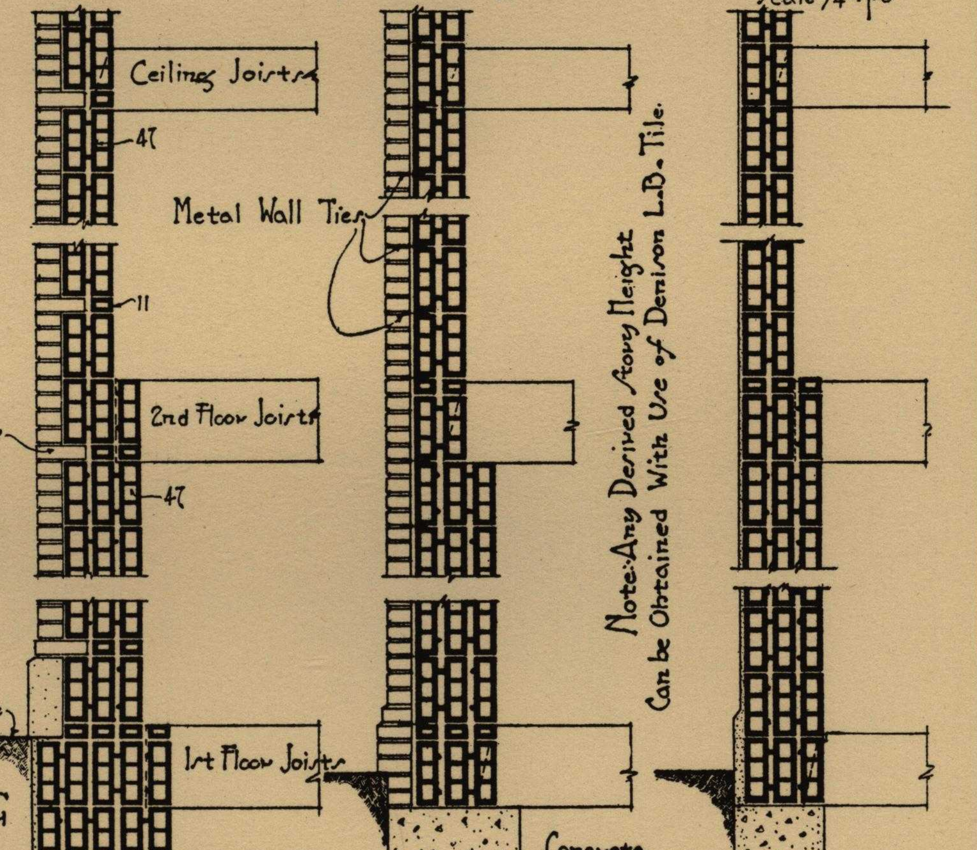
WALL SECTION
SHOWING A METHOD of DAMPROOFING



DETAIL at "B"
Scale 3/4" = 1'-0"



DETAIL at "A" SHOWING ALERNATE COURSES
Scale 3/4" = 1'-0"



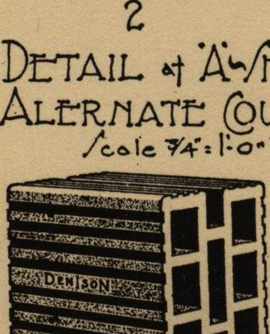
Note: Any Desired Story Height Can be Obtained With Use of Denison L.B. Tile.

BRICK VENEERED WALL EVERY 9TH COURSE a HEADER-COURSE.

BRICK VENEERED WALL USING METAL WALL TIES.
(This form of Bond not Reccommended)

STUCCO or DENISON L.B. WALL.

DETAIL of DENISON LOAD BEARING TILE WALLS.
Scale 3/8" = 1'-0"



SET No 7

SHEET No 3.

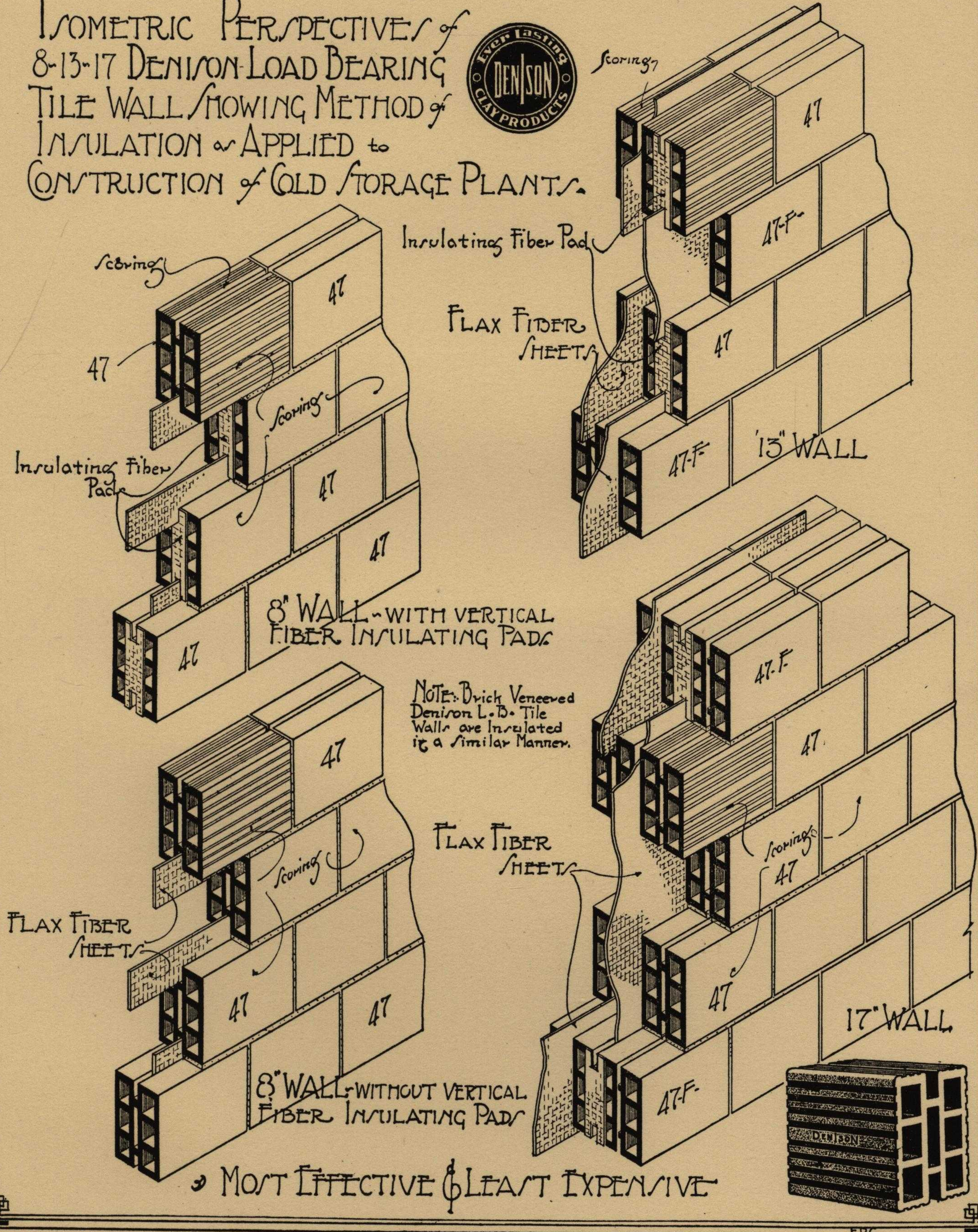
NOTES

LOAD BEARING TILE

HAY WALKER BRICK CO. PITTSBURGH, PA.

ISOMETRIC PERSPECTIVES of
8-13-17 DENISON-LOAD BEARING
TILE WALL SHOWING METHOD of
INSULATION as APPLIED to
CONSTRUCTION of COLD STORAGE PLANTS.

Ever lasting DENISON CLAY PRODUCTS



8" WALL - WITH VERTICAL FIBER INSULATING PADS

13" WALL

NOTE:- Brick Veneered Denison L.B. Tile Walls are Insulated in a Similar Manner.

8" WALL - WITHOUT VERTICAL FIBER INSULATING PADS

17" WALL

MOST EFFECTIVE & LEAST EXPENSIVE

FDC

ORMISTON-BICK COMPANY, PITTSBURGH